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ORIGINAL ARTICLES.

THE CLIMATE OF THE EAST COAST OF FLORIDA.

GENERAL HEALTHFULNESS, FREEDOM FROM FOGS, MUD AND DUST; ATTRACTIONS FOR THE INVALID AND TOURIST; NATURE'S SANITARIUM FOR THE CONSUMPTIVE.

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If it be true that the Rocky Mountain region "is a land lifted up by nature into the pure serene for the invigoration of the race," it is equally true that the peninsula of Florida, jutting out into the southern seas, offers to the aged and invalid a most inviting climate for the comfort of advanced years and the prolongation of life. Much has been written and said of Florida. Some who have come to the State and fortunately regained health and otherwise prospered have painted a picture in glowing colors of Florida and her wonderful climate; others, less fortunate, have given the dark side. It is our purpose as medical men and residents of the section, to give the world reliable information regarding this, the American Riviera.

By the east coast of Florida we mean that section of the main land between the St. John's River on the west and the Atlantic Ocean on the east; St. Augustine on the north and Key West on the south, the entire length of which is traversed by the Florida East Coast Railway and Key West and Miami Steamship Company. This territory includes the Counties of St. Johns, Volusia, Brevard, Dade and Monroe. Along this section and within a distance of a few hundred yards to a mile of the ocean, there is a system of waterways making an inland route almost the entire distance of the State. These waterways are lagoons, arms of the sea; they have been given the names of rivers, lakes and bays, and thus we have along the coast, the Halifax and Indian Rivers, Lake Worth and Biscayne Bay. These waters are all a clear blue, are salt and abound with fish, oysters and water fowl in winter. The land, for the most part, is high and dry, the native forest is of oak, hickory, pine and palmetto, but this has given way in many places to orange groves and pineapple fields or to vegetable gardens. The soil is a rich, heavy sand; we have neither dust nor mud; no frozen ground or slush. The prevailing winds are from the east, and the resident population, living for the most part within a few miles of the ocean and directly on these inland waterways, enjoy excellent health. We believe this to be the most healthful section of Florida and the climate is certainly as near perfect as is to be found. Before this section of the State was opened up people got their ideas of Florida from visiting at Jacksonville, St. Augustine and other places in the northern part of the State, and many of them not seeing in those places the tropical growth they expected to find, have been sometimes disappointed. While the climate of these places is very desirable and their hotel accommodations are excellent, yet they do not present the "land of flowers" appearance that the visitor wishes to see. Let them remember that these places are in the northern part of the State, that one can travel south from Jacksonville 400 miles, a distance greater than from New York city to Richmond, Va., and yet be on the main land of Florida. By reference to a map it will be seen that Florida extends through six degrees of latitude, or from about 29 degrees north to 24½ degrees going south, a distance of over four hundred miles on a due north and south line. Certainly traveling this distance in a semi-tropical country must bring one to a mild and balmy climate, and such is the climate of the lower east coast of Florida. We shall not take up space by giving comparative statistics with other favored sections, but will present a few tables showing the temperature at several Florida points where the United States government has kept observers.

Seven months of the year on the east coast of Florida is our summer, with a temperature ranging from 70 to 95 degrees. At Jupiter, a government station a little more than half way down the coast, the highest temperature of the summer months for eight years past was 95 degrees F. and the lowest 64 degrees F. So far, then, as the summer temperature is concerned this statement will suffice. The spring and autumn in Florida is simply delightful, temperate weather. What is generally understood as the Florida season or winter are the first four months of the year.

Our temperature table below will include three important points about equal distance apart. Jupiter is a little below a line equally dividing the mainland of the State north and south, but is about half way between Jacksonville and Key West, the latter cities being the northern and southern extremes. The figures are taken from tables furnished by the Weather Bureau of the United States Department of Agriculture:

TEMPERATURE TABLE—FAHRENHEIT.

	JANUARY.			FEBRUARY.			MARCH.			APRIL.		
	Maximum.	Minimum.	Mean.	Maximum.	Minimum.	Mean.	Maximum.	Minimum.	Mean.	Maximum.	Minimum.	Mean.
Jacksonville	81	15	55	84	*14	57	88	27	62	92	34	69
Jupiter	83	34	65	87	*27	67	87	33	68	93	55	76
Key West	79	55	67	80	52	66	82	54	68	83	66	75

*These low temperatures are the record of the great freeze of 1895, the lowest temperature recorded in sixty years in the State. The lowest in eight years previous to this was 26 degrees in Jacksonville, 33 degrees in Jupiter.

From the foregoing table and also from another

submitted below, it can be shown that no other section of country in temperate latitude presents so equable a climate as the peninsular or southern portion of Florida. A perfect climate is only ideal; it is not a reality. In point of temperature a perfect climate would never fall below 70 degrees or rise above 75 degrees, as such a temperature would be more conducive to human comfort than any other. In no part of the world can such a climate be found. But if we extend this range ten degrees each way and say 60 to 85 degrees, we then have a climate that is obtainable for a considerable portion of the year. We say 60 to 85, because when it falls below 60 it is too cold for comfort, or above 85 it is too warm for comfort. From this it will be seen that the place that has, during the year, the largest number of days the temperature of which falls wholly within these limits, comes the nearest to a perfect climate.

The following table is compiled from the reports of the Signal Service of the United States Army. The headings of the lines and columns sufficiently explain their contents, bearing in mind that the figures indicate the number of days in that place for that month, no part of which the temperature was below 60 degrees nor above 85 degrees:

1879.	Los Angeles, Cal.	San Diego, Cal.	Campo, Cal.	Jacksonville, Fla.	Punta Rassa, Fla.	Galveston, Texas.	New Orleans, La.	Charleston, S. C.	Wilmington, N. C.	1887. Riverside, Cal.	*Island Home, Fla.	Key West, Fla.
January	0	0	0	0	14	5	3	0	0	0	8	25
February	0	0	0	1	10	1	1	0	0	0	26	25
March	1	1	0	11	21	23	9	4	2	0	13	31
April	0	0	0	12	22	25	17	11	8	4	19	28
May	0	0	0	20	27	25	27	19	14	1	26	19
June	6	5	0	10	8	6	10	13	12	3	13	13
July	10	22	0	4	3	0	2	9	11	3	4	0
August	9	28	0	7	5	9	16	11	10	1	5	1
September	5	14	0	19	12	21	20	24	13	2	16	5
October	1	3	0	26	20	21	22	20	18	0	25	19
November	0	0	0	13	21	18	13	11	7	0	23	30
December	0	0	0	5	30	16	7	2	3	0	17	31
For the year	32	73	0	128	193	170	147	124	98	14	195	227

*Near Rock Ledge on the Indian River, table by Rev. J. H. White, observer Weather Bureau.

While the highest average maximum temperature for the months noted varies very little along the entire east coast, it being 86 degrees at Jacksonville, 87 at Jupiter und 81 at Key West, it oppears there is a decided difference in the average minimum temperature, it being 25 degrees at Jacksonville, 37 at Jupiter and 57 at Key West (these minimum figures being for the coldest winter on record). Thus, while the summer is very uniform the winter temperature varies about 30 degrees, or from 25 degrees in Jacksonville to 57 degrees at Key West, a distance of about five hundred miles. Going south then from Jacksonville one may expect for every 100 miles traveled an increase of temperature from 4 to 6 degrees, there being a difference of 12 degrees between Jacksonville and Jupiter and 20 degrees between Jupiter and Key West. Key West being entirely surrounded by water, makes the winter climate relatively warmer and summer cooler than on the main land.

For twenty-five years the mean or average temperature for Jacksonville is as follows: November 62 degrees, December 56, January 55, February 57, March 62, April 69.

For eight years past the mean or average temperature for Jupiter is as follows: November 72 degrees, December 67, January 65, February 67, March 68, April 72. These figures showing a general average difference of 10 degrees between Jacksonville and Jupiter, approximately bear out the previous estimate. We, therefore, have in the Jupiter station a good basing point for calculating the temperature along the coast, and it will work very satisfactorily. For instance, one wishes to know about the average temperature for the month of January at Rock Ledge and Miami. We find the average at Jupiter is 65 degrees for January, Rock Ledge is about 100 miles north of Jupiter and would have an average temperature of 61 degrees; Miami is about 100 miles south of Jupiter and would have an average temperature of 69 degrees. For the present we have to figure this way, as many of the resort places are new and have no regular reliable weather reports.

From other data at hand we observe further, that along the east coast of Florida the temperature is from 4 to 6 degrees warmer for every 100 miles going south than other portions of the State. This is accounted for in several ways. The waters of the gulf are shallow near the land. whereas on the east side the ocean is deep in near the shore; there, too, the cold waves or winds which come to South Florida come across the gulf from Texas—Texas "northers" as they are called—and although they are tempered in coming across the gulf by the warmed waters, yet they are our cold winds. In fact, these winds from the northwest bring what damaging cold we have on the east side. A greater factor, however, in moderating the cold of these northwest winds and in regulating the climate of the east coast of Florida is that wonderful ocean river, the gulf stream. It sweeps in between the west end of Cuba and Key West and flows close in shore along the southeast coast of Florida, and as its waters are considerably warmer than the ocean proper and our prevailing winds being east, the warmed air thus brought over materially modifies our climate, making the winters warm and the summers cool by winds fresh from the ocean. The regular "norther" which we have occasionally on the east side is a water wind and never brings frost. A glance at the map will show that Jupiter is nearly one hundred miles east of Fernandina, so that all of the due north winds that strike the coast east of Fernandina are water winds, always warmer in winter than those from the land; our cold, icy winds always come across the land and from the great northwest. Such then is a general review of the temperature of the east coast and its modifying influences. There are other things of great importance beside the range of temperature which should shape our judgment as to any climate; chief among these are humidity, fogs and dust.

The average humidity in Jacksonville for twenty-five years is 74, and for the last two years at Jupiter was 80; this is a fair average for the east coast. Now, as to fogs. One of the writers of this paper has lived twelve years on the Indian River, during which time he has not seen twelve foggy days, and here it rarely rains or is cloudy all day. From the weather bureau report from Jupiter station we make the following quotation: "Total number of foggy days, dense fog for over one hour, two in 1894, three in 1895." This is, indeed, the land of sunshine. We have little or no dust, the soil along the east coast of Florida is a

rich heavy sand; it does not grind up into dust, consequently we do not have dust storms, prevalent in some sections; beside there is little open country and the wind has no chance even if it were dusty. There is but little clay in the soil; it is porous and furnishes an excellent filter for the rain that falls, so we have no mud. One hour after a heavy rain persons can walk in their shoes without getting their feet wet or shoes muddy. Think, then, of a country averaging three-fourths of the days of the year with clear skies, moonlight nights only rivaled in the tropics, no dust, no mud, no frozen ground or slush, no fogs to speak of, no unbearable heat or humidity, and an average winter temperature of from 65 to 85 degrees. These are the climatic conditions of the east coast of Florida.

Now as to the general healthfulness of this section. The Commissioner of Agriculture for the State of Florida has furnished us the following statistic data for the counties of the east coast of Florida, population and death rate according to the census of 1895. Population: St. John's County, 7,708; Volusia, 11,480; Brevard, 4,558; Dade, 3,322; total population, 27,068. Deaths: St. John's, 63; Volusia, 23; Brevard, 9; Dade, 7; total deaths, 102. Death rate less than 4 per 1,000. If there is any error about this statement, as some will no doubt suppose, the State officials are responsible for it. We present this table as an offset to many slanderous reports concerning the general healthfulness of this State and section, also for the purpose of directing attention to what is, so far as we can ascertain, the lowest death rate of any section of the United States. In the so-called sickly sections of the country and in nearly all of our cities throughout the States the death rate is four or five times as great as here.

From an interesting article on the climate of New Mexico, appearing recently in the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, we make the following sweeping quotation: "Statistics have proved that the West Indian Islands and the *Gulf States* are unfavorable for most lung diseases and rheumatic fevers, as well as abdominal disorders generally, being hotbeds of malaria." There are undoubtedly sections of the Southern or Gulf States, notably along the Valley of the Mississippi River, that are extremely malarious, but such a wholesale statement as the foregoing must be corrected. Grant that these sections do have malarial troubles, they are not, as a rule, fatal, and it can be shown by statistics that the death rate of the Southern States as a whole is less than any other grand division of the country and the climatic conditions are here more favorable for the prolongation of life.

In defense of Florida we quote as follows from a report by Surgeon-General Lawson, published just the last war: "The climate of Florida is remarkably agreeable, being subject to fewer atmospheric variations and its thermomemeter ranges much less than in any other part of the United States, except a part of the coast of California. (This report made before the east coast of Florida was settled up.) As respects health, the climate of Florida stands *preëminent*. That the peninsula of Florida is much more salubrious than that of any other State in the Union is clearly established by the medical statistics of the army. Indeed, the statistics in this bureau demonstrate the fact that diseases that result from malaria are of a much milder type in the Peninsula of Florida than in any other State of the Union. These records show that the ratio of deaths to the cases of remitting fever has been much less than among the troops serving in any other portion of the United States. In the middle division of the United States the proportion is 1 death to 36 cases of remitting fever, in the northern division 1 death to 52 cases, in the southern division 1 to 54, in Texas 1 to 78, in California 1 to 122, in *New Mexico* 1 to 148, while in Florida (a Gulf State) it is but 1 to 287." It would be idle talk to say there was no malaria in Florida, people appreciate truth. Wherever there is heat, moisture and decaying vegetable matter there must be some malaria, but what of it, when it causes no deaths. Beside this, people, and physicians as well, are too often in the South disposed to call every trifling ailment, even biliousness and disorders of digestion, malaria. It frightens outsiders, it means nothing to us.

The east coast of Florida is fortunate in having little or no malarial troubles. For the most part the land is high and dry, the soil is sandy and water does not stand upon it. The people for the most part live along the banks of the rivers within a few miles of the ocean. There is almost a constant prevailing east wind fresh from the ocean, and the miasmatic vapors that form about the low lands and marshes west of us are blown away, so that our air is very pure.

A prominent physician of the Indian River country states "that in twelve years he has not seen a case of scarlet fever, diphtheria or true croup, has had only three cases of pneumonia, all sequelæ of la grippe and all recovered; has never had a death from simple malarial fever; that rheumatism is rare amongst those who are properly fed, and that most asthmatics do well and nearly all consumptives are benefited in this section."

Another prominent physician, in an article on the health of Brevard County (this county being 100 miles long, making one-fourth of the east coast), makes this statement: "For the last four years I have not used over four ounces of quinin or its kindred compounds in my practice annually. There is but little tendency for the remitting and continued fevers to pass into that state known as typhoid."

From the same writer (Dr. Geo. W. Holmes) I quote further: "The Indian River furnishes an unsurpassed asylum for the invalid from the chilly blasts of old winter. It is equaled by few sections of the world in its freedom from damp and foggy mornings. Its sandy soil swallows up whatever rainfall the passing showers may bring, leaving the surface free from redundant water, so that there is absolutely no mud for the pedestrian to chill his feet with.

"The invalid seeking recuperation from the ravages of that invincible destroyer of our race in northern latitudes, pulmonary disease, will meet in many of the resident population practical demonstration of its beneficent influence. The writer of this article came to this section in January, 1875, from central Ohio, suffering from pulmonary consumption. Improvement was definite the first winter, and a continued residence has resulted in confirmed good health, continuing to the present year, 1896."

Statements could be multiplied at great length setting forth the advantages of this favored section, but we think enough has been said to warrant physicians throughout the country in advising their patients who have incipient phthisis or are otherwise in feeble health to come to this section of Florida. Not only

may they be safely advised to come here for the winter months, but to make for themselves permanent homes.

The east coast is comparatively speaking a new section of the State. In other years, when a trip to Florida was the popular thing, the east coast was quite inaccessible. A journey from Jacksonville or St. Augustine to Rock Ledge or Lake Worth required many days and great inconvenience; this now is all changed. About five years ago Mr. Henry M. Flagler, a New York millionaire (and member of the Standard Oil Company) undertook what was and is a stupendous project—that of building and operating a railroad from St. Augustine south to the Keys, the present terminus being at Miami, 366 miles south of Jacksonville. Mr. Flagler has also constructed along this line of railroad at different points the most expensive and elegant hotels in the South, perhaps in the world. It is then no longer a question of expedition or comfort in travel or entertainment after reaching this section. There is much in this section to attract the tourist and invalid. There is no rough mountain scenery, the land in no place rising more than 100 feet above the sea level; but for broad expanse of water view, for evergreen tropical vegetation, for fine fishing and hunting, for balmy air in which the invalid can remain out of doors nearly all the time, we have a country unequaled. A few years ago the forest of palms and hard woods stood in its primeval glory. Now it is broken in many places, and here and there thrifty little towns dot the coast, where once stood the Seminole tent. The attractions of these little towns are varied, all now offering the comforts of life.

Going south from Jacksonville is St. Augustine, the first east coast town, noted for its antiquity and its magnificent hotels. It is said that the Ponce de Leon Hotel in St. Augustine is the finest structure of its kind on earth, and its service is unsurpassed. Going yet further south the next places of importance are Ormond, Daytona and New Smyrna, on the Halifax River and ocean front; these places are noted for their fine sea beaches, admirable for bathing, which, with beautiful shelled streets, make it very attractive for the bicyclists and for driving outfits.

Still further south, down on "the Indian River," we come to Rock Ledge, "the beautiful." No place in Florida presents more natural beauty than Rock Ledge. The shelled drive along the rocky front bordering the Indian River, overhung with moss-draped oaks and the evergreen palmetto, is something enchanting. Here too is the home of the famous Indian River orange. Rock Ledge has three excellent hotels and a number of boarding places suited to all classes of people. One hundred miles below Rock Ledge and we come to Lake Worth, in the midst of semi-tropical scenes and pineapple plantations. On the peninsula between Lake Worth and the ocean Mr. Flagler has erected the Royal Poniciama Hotel at Palm Beach, with accommodations (including "the Inn") for 1,000 people. Everything has been done here to make glad the heart of the visitor.

Yet further south nearly a hundred miles, down on Biscayne Bay, we come to Miami, and for the present "here we rest."

Miami presents a strictly tropical appearance. Its cocoanut trees, with profusion of vines and beautiful flowers, make a scene that can not perhaps be observed anywhere else in the United States. At this place Mr. Flagler is having erected another beautiful hotel, the Royal Palm, which will be ready for guests the coming season. So much, then, for the country and its advantages.

In closing, we wish to present some views for the benefit of the consumptive. In the present state of our knowledge there is no specific cure for pulmonary tuberculosis; neither is there any climate or section where all can be cured. Patients have been sent in all directions. They have been advised to climb into "the blue serene" of the mountains where the air is light and pure, and where respiration could be carried on with less difficulty than at the sea shore; they have been sent to the wide plains to breathe the dry air (and likewise the dust); they have been sent to the far north where the air is so cold that the bacilli might be frozen out; they have been sent to the tropics where no pneumonia would aggravate. Alas! no place suits every case; some are doomed to disappointment. Now, we offer you the east coast of Florida as nature's sanitarium. In a paper read before the last meeting of the Florida State Medical Association, Dr. George Troup Maxwell stated that forty years ago pulmonary consumption was almost unknown in Florida, the disease now existing having been brought into the State by outsiders. To this statement we can add the testimony of many physicians now in the peninsula of Florida that, except in cases of heredity or clear infection, consumption is almost unknown among the resident population. This should give great encouragement for sendng patients with pulmonary and catarrhal affections to this section. (Our health officials might profit also by this lesson, for in extending our hospitality we are inviting a foe.) Physicians in advising a change of climate must consider more than range, or variations of temperature. Sick people are sensitive, especially so are consumptives; although as a rule they are the most hopeful class of invalids, they are much affected by scene and environment.

Little benefit could be derived in a uniform temperature of 80 degrees, if there was nothing in sight to delight the eye or gratify the palate.

What the consumptive requires is a climate so mild that the tuberculous process is not aggravated by respiring chilled air. Congested conditions of the lungs and bronchial tubes deprive him of a certain amount of oxygen absolutely necessary for life and comfort.

They should be out of doors amongst the trees and flowers, breathing in nature's remedies. They should have the sunshine, which here they can have three-fourths of all the days of the year.

They should have fresh fruit, fish and vegetables, which here abound, the orange, pineapple, grape fruit and saw-palmetto berry growing here in their greatest perfection. They should have good beef, eggs, bread and milk, which can now be had anywhere along the east coast. Neither air, sunshine or drugs alone will cure a consumptive; they must be fed until we shall have discovered a remedy that will destroy and rid the system of tubercle bacilli without destroying life.

A country showing such a low death rate as ours must be healthful, and a healthful country is better suited to invalids than those sections where much sickness prevails. It will be difficult to find a climate better suited to the invalid class than that of the east coast of Florida. Here in midwinter he may bask in the sunshine or hie himself (or herself) to the shade of the beautiful evergreen trees. At night he is

soothed to slumber by the murmuring of the mighty deep. From his window he may look out upon a broad expanse of blue water, salt and pure; upon waving palms and beautiful fragrant flowers. At the table he may have the most nourishing food, the most luscious and healthful fruits.

Here there is no dust, no frozen ground, mud or slush; but few damp mornings, and the invalid's life is full of variety, and a pleasant existence rather than a weary fight for life.

Being ourselves thoroughly convinced that no section of our great country offers so mild and equable a climate, so low a death rate or so many advantages and conditions favorable for the prolongation of human life, we take pleasure in presenting these facts, and will gladly give further information if desired.

INFANT MORTALITY DURING LABOR, AND ITS PREVENTION.

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The time was when women brought forth her offspring with pain and suffering, without the presence of midwife or physician; but from the beginning the process has been accompanied by dangers to the mothers and more or less mortality among the children. Although we lack full statistics it can safely be asserted that among the uncivilized peoples (those wholly uninfluenced by civilization) the rate of infant mortality is far less, during labor, than it is at the same time among the civilized peoples. This may seem at first a broad statement, but by comparing the two classes of peoples we can easily find sufficient causes to warrant the assertion.

Man, in the first stages of his existence, was semi, or wholly, barbarous. From that state of being he has gradually grown through the successive stages of civilization to the highest type of human possibility at the present time, a refined and civilized being. He left his footprints all along the way and today they may be found scattered throughout the world in the various civilized, half civilized and savage peoples that mark the different stages of his progress.

In order to get a better understanding of the existing circumstances let us examine the two extreme stages of his existence in respect to his life and characteristics in each stage, and judge of their influence on the mortality of the children of each class. Take, for instance, the wholly uncivilized races, those completely isolated from the influences of the civilized world; with them, like with the lower animals, it is a pure case of the survival of the fittest. Stout, robust, healthy people, living a life of activity and open air exercise, every muscle in their bodies is well developed; every organ is in a perfect state of healthy activity. Where anything is definitely known about them, history and science teach us that they are a perfectly healthy and happy people where civilization has not cast its baleful shadow upon them. Every man, woman and child is in a direct line of healthy ancestors. Each and every one is of good blood, is well developed and has an enduring constitution. They all dress in accordance to the demands of the climate in which they live. In warm climates, where most of them live, they are not encumbered with clothing to any great extent. In cold climates, where warm clothing is necessary, they wear thick fur clothing, but wear it loose; for experience has taught them that thick clothing, loosely worn, will keep them much warmer than the same clothing worn with a tight fit. Hence, no matter in what latitude they may live, we find them wearing no restraining bands or no tight laced corsets; nothing, in fact, to retard their normal growth or to check the natural development of any part or organ of the body.

With pregnant women this is an important factor; but there is another, and perhaps greater, difference between these women and their civilized sisters. Child-bearing with them is a pleasure as well as a duty, for they have nothing to fear from the dangers of it, as compared to the civilized woman. Although the uncivilized sister is a hard-working woman and does all the work of the place, even up to the time of her confinement, she seldom has a miscarriage. Her good health and free and unrestrained development are guards against it. She neither fears the dangers of childbirth nor dreads the ordeal of pain. Her fine physique and her healthy ancestry reduce these to a minimum. Her children live and thrive and in time reproduce their kind, and people their country with types of robust, strong and healthy people, who multiply upon the face of the earth as God commanded.

Between the uncivilized and the ultra-civilized there is a class that have felt the influence of civilization without themselves being civilized thereby and are, in every such instance, losers by the contact. The American Indian is a good example of this class. Over them has civilization cast its shadow and upon them left its blight. Among them came the civilized Christian with the Bible in one hand, a flask of brandy in the other, the germs of tuberculosis in his system and a Hunterian chancre under his prepuce. He left behind him a degenerating race of miserable débauchés, suffering from the ravages of consumption and rotting with syphilis, whose path through the world is best marked by their graves.

Let us now consider a people upon whom the effect of civilization has been to improve them intellectually, to enfeeble them physically and, in far too many instances, to render them morally depraved, namely, ourselves.

Ease, luxury, indolence, licentiousness and intemperance, the creations of that corrupt offspring of civilization, fashion, are the sins for which our healths and the healths of our children have to suffer. For nearly, if not quite, fourteen centuries we have been inheriting and transmitting the vitiating effects of these vices, so that what wonder is it that today we are degenerated physically from what our earliest ancestors were, and what wonder is it that some of us are morally depraved? What wonder is it that we are a race of tuberculous syphilitics?

Our women are in a worse condition, if possible, than the men. How little are they prepared to bear children. Like their husbands, they are the offspring of a physically enfeebled race. Civilization has raised them mentally above the plane of their barbarian ancestors; but, being natually of a frailer constitution than the men, the physical retrogradation that they have undergone, side by side with the male portion of the race, leaves them today but a faint outline as compared with the sturdy robust persons of their female progenitors.

They marry, like their mothers before them, for purely social and financial reasons; and seeing about them the fatal effects of reproduction, they shun that duty accordingly. Themselves the progeny of a

syphilitic degenerated ancestry, they dread the responsibility of reproducing their kind. The married life of one is almost the counterpart of that of each of the rest. Her physical development being probably imperfect, she may not have the normal sexual desires associated with a married life. But whether she complies with the wish of her husband through desire or through a sense of duty, she takes the precaution to avoid pregnancy. This precaution is often unnecessary because of some abnormal (and congenital) condition of her generative organs, but more often because of the pathologic condition of the generative organs of her husband (attributable to youthful indiscretions); but it is taken nevertheless, and the mode that is usually employed is one that of itself will soon render the woman sterile, to say nothing of its being apt to make her an invalid for the rest of her life. I refer to the practice of using a cold water douche (with some strong astringent dissolved in it) just after coition, and while the uterus and its appendages are hot and congested with blood. But society has too many demands upon their time to allow such a small matter as her health or her life to interfere and cause her to be laid up at home for a year or more with a baby to attend to; and business has too many demands for money to spend it in raising and educating a child. Nor can the woman have her beauty sapped out by a nursing child. If she becomes pregnant it is an accident; but even then she is not without hope. There is still another hope, abortion. And, though I blush to acknowledge it, she finds no trouble in securing a physician who can ease what few conscientious scruples she may have left by finding some excuse for producing premature labor. This again removes a stone from the foundation of her already frail constitution; and so they multiply. What wonder that the rate of infant mortality during labor is greater among the civilized races than among the uncivilized? It is only too true.

These are only the remote causes, and not those with which the physician has to deal in treating a complicated labor case. By carefully studying the immediate causes (of which there is a classified list below) it will be seen that a great part of them are the effects of the remote causes just mentioned. Their origin may be found in the inherited diseases, in the congenital or acquired physical defects, or defects in the physiologic functions of some organ of the body (caused by inherited or acquired disease); and last, but not least, they may be caused by a too faithful subservience to the demands of fashion, whose slave the woman is, as was her mother before her. The immediate complications of labor cases, from the effects of which the physician is called upon to protect the child's life, are as follows:

I.—Those located in the maternal tissues.
1. Deformed pelvis.
2. Tumors obstructing the passage.
3. Unyielding perineum.
4. Uterine inertia.
5. Ante-partum hour-glass contraction.
6. Displacement of the uterus.
7. Rupture of the membrane.

II.—In the cord and placenta.
1. Short cord.
2. Cord around some part of child.
3. Knots in the cord.
4. Prolapse of cord.
5. Placenta previa.

III.—In the child
1. Head presentation.
   a. Head abnormally large.
   b. Body abnormally large.
   c. Face presentation.
2. Breech presentation.
   a. Head pressing on the cord.
   b. Arm thrust past the side of the head.
3. Twin labor.
   a. Children wedged.
   b. Head-lock.

There is no other case in which the physician's services are required, where he is so universally placed at a disadvantage, as in a labor case. He is not usually called to attend the woman till she has been in pain for some time, and then he is obliged to hasten to the scene of action lest, if the case be a normal one, the child be born before he arrives; and should it prove to be a badly complicated case, he finds himself there almost empty-handed, or at least without the very instruments and medicines that he needs; for, in his haste, he has left them at home. Such trivial circumstances make no difference to the people whose relative or friend he is to attend. No matter what may be the nature of the complication that exists, he is expected to meet it with skill and promptness.

I heard the late Professor J. S. Knox of Rush Medical College say that he never undertook the care of a labor case unless it was placed in his charge before the eighth month of gestation. If all physicians would make that a rule it would be better for the mothers and children, and of infinite benefit to our reputations as successful obstetricians. By doing that we would place ourselves in the most favorable position to meet the complications and would thus be more apt to secure a living child, and to prevent, in many instances, the death of the mother. For we would not be taken by surprise, but being forewarned would be forearmed, and that is no insignificant item in handling complications that may cause the death of a child.

Let us take a hypothetic case to which we are supposed to be called thirty to sixty days before labor is expected. We first inquire into the history of the case and its progress since conception, so as to be able to determine the probable date of its completion. Her family history and her personal history must be investigated, not omitting to question her as to the number of births, stillbirths and miscarriages she may have had. Should she report any we must use our best efforts to determine the probable cause of each. For this we will find her personal history of value, and a digital examination of her vagina (and of the uterus and its appendages) will be indispensable. If, duriug this examination, which should be thorough, any obstructions are found that are sufficiently large to endanger the life of the child in passing, they should be examined to ascertain whether their character is such that they can be reduced in size or removed. They should then be treated at once in the manner best adapted to their nature and to existing circumstances. Before departing word should be left for a sample of the patient's urine to be sent to your chemist for examination each morning for eight or ten days. This should be repeated at intervals till the patient is confined, and if albumin is found to be present each time and in large and increasing quantities, one may be certain that the patient is going to have

uremic convulsions if nothing is done to prevent it. It was for this examination more than any other one reason that Professor Knox insisted on having charge of his cases before the eighth month. Furthermore, this early examination makes one complete master of the situation, so far as surprises are concerned (in the way of complications that may be found or anticipated at this early time).

This brings us to the classified list of complications. Of the class located in the maternal tissues, the first is:

Deformed pelvis.—By this is meant a pelvis in which one or more of its diameters is so small that a normal-sized child can not pass through without endangering its life. It is true there are degrees of deformity, but to be classified with the complications that endanger the life of the child during labor, it must be as above stated. This narrowing of the pelvis may be due to various causes and it may be deformed in various ways: 1, it may be deformed by being misshapen or twisted; 2, it may be from a bony growth, caused by disease or by bone tissue being thrown out to heal some injury to the bones of the pelvis; 3, it may be deformed by being too small in every diameter, though perfectly regular in shape. This is usually called a contracted pelvis. The first two of these may be congenital in origin or may be the result of injury or disease. The last (when found in a large or medium sized woman) is due to a thickening of all the bones of the pelvis, or from an insufficient development of the whole pelvis; but it is most commonly found in small women, where the pelvic cavity is in just proportion to the other parts of the body but too small for the passage of a normal-sized child by a natural delivery.

A deformed pelvis is one of the complications that can be discovered at any time by an examination. In examining a pregnant woman, either before or at the time of confinement, the size of the pelvis and of the conjugate diameter in particular, should be noticed, and if it appears small it should be measured at once. In measuring, bear in mind that a conjugate diameter of three inches will allow a living child to be extracted, with or without forceps; three to two and a half inches, may be delivered by forceps or version; while two and a half or less, may be delivered by craniotomy. If, before the time of confinement, the patient's pelvis is found to be too small to allow the child to pass, we have to weigh the desire for a living child against the dangers of Cæsarean section or symphyseotomy at full term, and in accordance with our decision await for full term or induce premature labor. Unfortunately, we are not usually in a position to discover the deformed pelvis till we are at the bedside of the woman to attend her in confinement. Premature labor is then out of the question, and we have left four modes of porcedure to choose from. We can secure a dead child by craniotomy or embryotomy, and a living one by Cæsarean section or symphyseotomy. In making our decision we must take into consideration the state of the patient's health and the probability of her being able to withstand the operation that we decide to perform. As to the severity of the operations themselves, statistics show us that symphyseotomy is not only far less dangerous than craniotomy, but it has the advantage of securing a living child. This is an important feature, for, where a woman is conscious of having a living child, she will recover much more rapidly (other things being equal) than where she knows the child to be dead. It may also be stated that embryotomy is almost out of the question, for it seldom occurs that craniotomy will not do all that is necessary. As to the choice between symphyseotomy and Cæsarean section, statistics and observation will soon settle that. The child has a much better chance of living when symphyseotomy is performed, for the delivery is in every way natural, while it is a matter of record that the mother has a far better chance of recovery. This will seem perfectly clear when one stops to think of the greater amount of mutilating necessary to perform Cæsarean section; whereas in symphyseotomy there is very little blood drawn, the incision may be made subcutaneously and the abdominal cavity is not opened at all. Hence, under ordinary circumstances, symphyseotomy should be chosen to secure a living child in all cases where the choice lies between it and Cæsarean section, craniotomy or embryotomy.

Tumors obstructing the passage.—The word "tumor" is here used in the sense of the word from which it is derived, *tumere*, meaning to swell. That is, any swelling of the tissues of the mother from the uterus to the vulva, inclusive. These tumors may be the result of inflammation; they may be distinct pathologic growths of benign or malignant nature, or they may be caused by bony growths beneath pushing out the flesh, in which case they come under the class of deformities of the pelvis and are discussed there. Whenever tumors are found and are of sufficient size to be a serious impediment to labor, their exact nature must be determined at once. If they are the result of inflammation they may usually be reduced in a short time, a few hours, by the application of a hot water douche or more rapidly by lancing, according to the demands of the case and of surrounding circumstances. If they are distinct pathologic growths, the only means of freeing the passage is by extirpating them. This, of course, must depend upon the time you may have and upon the condition of the patient. When it is found to be impossible to reduce the size of the tumor, and at the same time the circumstances and conditions are such that it should not be extirpated, the physician is placed in the same position in which he would be if the case were one of deformed pelvis. That is, if the tumor is so large that it will prevent instrumental delivery, the physician would have to choose between symphyseotomy and Cæsarean section if he wishes to secure a living child, or he would have to perform craniotomy if he decides on a dead one; and the same circumstances must be taken into consideration that were mentioned under the treatment of deformed pelvis. Hence, where not especially contraindicated, symphyseotomy should be performed.

Unyielding perineum is the third in this class and is not a very common case. By that it is meant that it is very uncommon to see a perineum so non-elastic as to endanger the child's life. When the perineum is not elastic enough to allow the child to pass and at the same time is too tough to rupture, the pressure of the uterus is sure to destroy the life of the child. That is the kind of perineum that comes within the scope of this paper, though it is of uncommon occurrence, it is by no means impossible. When such a case occurs the physician is sometimes able to deliver with forceps and he should make an effort to do so, but he will not always succeed. It is not always possible to determine whether or not the perineum is going to rupture till it actually tears; and since the less yielding the perineum is the greater is the damage

when it tears, it is not always best to wait till it actually declares itself, but to wait only till it looks as though it will probably tear and then cut notches in the edge at each side of the median line, so that it will not tear down the center and involve the sphinxter ani as well as the perineum, but will tear in the line of the notches and a short distance only, thus saving a very troublesome wound and allowing the child to pass by, with or without forceps.

As to the immediate closing of the perineum, nothing better could be mentioned than the teachings of both James H. Etheridge, M.D., Professor of Gynecology and Obstetrics, and the late Charles T. Parkes, M.D., Professor of Surgery, both of Rush Medical College, and in the words of the former: "I have taught for years that the perineum that has been pommeled for two hours or more by a delayed second stage of labor, where the head descends upon the perineum, stretching it a little and then receding till the perineum is almost black and blue from mechanical violence, should not be closed by immediate operation, but that the operation should be delayed for twelve weeks. In cases of labor where the violence to the perineum is not done, the immediate operation is highly proper. This was also the teaching of our old friend, Dr. Charles T. Parkes."

(To be continued.)

APPENDICITIS WITH PURULENT PERITONITIS.

Read before the Kentucky State Medical Society at Lebanon, Ky., June 11, 1896.

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In presenting this subject the writer wishes to deal with its pathology and surgical treatment; and report successful clinics that have occurred in private country practice with the giants of the profession, viz., the general practitioners. There is no theme of more surgical importance than appendicitis, with or without perforation and gangrene. Whether we be physicians, general or abdominal surgeons, sooner or later we must confront suppurative appendicitis with purulent peritonitis.

As a rule the general practitioner is the first to see these cases. Upon his knowledge of pathology, early diagnosis, complications and surgical treatment, hangs the life and destiny of the patient; and it is incumbent upon him to give the danger signal, operate, or call a surgeon who will, and save life. Not an ideal, but life-saving, conservative surgery. It is not so much how many operations are performed, as how many lives can be saved? For a physician to let a patient die for want of clean skillful surgery, is nothing less than murder.

The time has come when one can no longer dilly-dally—batten the patient with opium, waste time with poultices and wait for tomorrow. No doubt many, many physicians today as they see and learn more of the pathology of appendicular lesions, illumined by the light of surgical science, lament over the "past and the might have been" and think of lost opportunities and patients sacrificed to timidity or want of skill.

Our knowledge of appendicular and peritoneal inflammation and successful surgical treatment, has not come from college professors; but from earnest, honest, skillful and wise general practitioners, who have grown to be successful and ideal abdominal surgeons. Early diagnosis, early preparations, short anesthesia, quick skillful surgery, means the saving of a life, removal of dangers that daily menace health and happiness; a minimum of shock, and one or two per cent., mortality.

Today we will open the abdomen, give our attention to the appendix and cecum, and study their morbid anatomy and that of adjacent organs as it concerns our subject. Recurrent appendicitis is a constant indication for section and appendicectomy, suppurative or ulcerative appendicitis with or without perforation into the abdominal cavity or the appendix, enclosed in thick lymph walls and adhesions, is a most cogent reason for operation. Imprudence in eating, exercise, or a blow, or fall, carrying a heavy weight, straining at stool, a sneeze, colic, paroxysm of laughter, cough or emesis, is liable at any time to strain, stretch or rupture the abscess wall, or the latter from septic pus ladened with microörganisms may become macerated, disintegrated, perforated, leak, rekindle the peritonitis, produce bands of lymph or an adherent appendix; and constrict the lumen of the bowel and cause intestinal obstruction or purulent peritonitis, and death—for death in a few hours or days will come unless early diagnosis, section, irrigation and drainage are done as life-saving measures.

Inflammation may extend from the cecum to within the lumen of appendix, or the appendix may be primarily the "*fons et origo*" of irritation, inflammation and perforation with abscess or gangrene and the cecum remain normal, or the latter in turn become violently inflamed, lacerated, or gangrenous and perforated, as was so beautifully shown in a case operated upon and patient saved by the writer.

The appendix may be adherent to the liver or gall bladder, broad ligament, ovary, tube, bladder, uterus or sigmoid; it may become twisted around the small intestine, finally causing obstruction, or become a part of an inguinal, umbilical or scrotal hernia. From repeated attacks of appendicitis lymph exudation is thrown about the appendix and upon and around neighboring structures. If upon the intestines, bowel paralysis may result or bands of lymph may cause destruction of tissue. Lymph may form in sufficient amount in all directions on the peritoneal surface and form a barrier more or less complete, sufficient to protect the peritoneal cavity from septic infection when abscess forms in the pericecal regions; in other cases there forms a distinct abscess wall completely encysting the appendix, and constitutes the tumor so often observed in these cases. It is usually well defined, immovable, more or less dense and painful to pressure; although it may contain pus as a result of the perforation of the appendix there is no flucuation until the tumor increases in size; as it approaches the surface, super-imposed tissue becomes edematous. Such an abscess may open through the abdominal wall and so establish a fistula between the bowel, the abscess cavity and external abdominal wall, over a point where the abscess should tend, with sufficient lymph wall to protect the peritoneum; ulceration and perforation may suddenly cause the gravest symptoms of shock and collapse, and death eventuate in twelve or twenty-four hours therefrom, unless section be done by a competent surgeon. A patient may have only one attack of appendicitis, recover completely and never have a recurrence, because the foreign body, appendolith, has escaped into the cecum, also sub-

sidence of inflammation and escape of appendicular secretion; the appendix may now undergo atrophy and be converted into a cord-like body, no longer a source of trouble or danger, "appendicitis obliterans."

The appendicular abscess may empty into the peritoneal cavity or into the super-imposed tissues and reach the surface, or in both cases by attachments and perforations, discharge into intestine, colon, sigmoid, uterus, bladder, vagina, become adherent to liver with abscess, and also cause abscess of omentum, tube or ovary. In perforated appendicitis with pericecal abscess and purulent general peritonitis, temperature 103 or 105, respirations 40 to 60, pulse 150 after section, with irrigation, drainage and rest, they have become normal within twenty-four hours, and patients made afterward prompt recovery.

It is most frequently impossible to differentiate between disease of the appendix and cecum, owing to their close relation. Both organs are covered by peritoneum through a portion of their extent and are liable to irritation, inflammation, ulceration and perforation. Perforation of the appendix is quite common, of the cecum rare and can only be settled positively by section. The diagnosis must be made between appendicular or cecal inflammation and acute intestinal obstruction, volvulus, intussusception, fecal impaction (obstruction may be simulated by the attending peritonitis, owing to the paralyzing effect on the bowels), also from spinal or perinephritic abscess.

Abscess of ovary and tube, abnormal pouch, or diverticulum of the ileum, is sometimes found in the right iliac region, also non-malignant and malignant tumors. Strangulation of the bowels, intussusception, volvulus, as a rule come suddenly; impaction of feces, psoas or iliac abscesses or tumors come on gradually; their physical characters and clinical history are usually sufficient to form a diagnosis. Abscess of tube and ovary and impaction may be diagnosed by the history, digital and conjoined manipulation. The final diagnosis must be made when the section is done.

Appendicitis may be complicated with an enlarged, elongated gall bladder, gangrene of the appendix vermiformis, with necrosis of mesentery and ileum, or pericecal abscess and fecal fistula. If the peritoneal cavity has been invaded by abscess, the intestine can be easily reached and cleansed through the lateral or median incision. The length of incision is from three to six inches, parallel with the colon and extending an inch or more above the middle of Poupart's ligament, upward and outward over the appendicular region to the outer side of the right linea semi-lunaris and continue downward until the peritoneum, cecum, appendix or pus-cavity is reached.

The appendix may be adherent and have to be separated, or have a mesentery of its own, its entire length; this must be tied in sections and cut away, the appendix ligated close to the cecum with silk or cat-gut, and cut off, and the peritoneum stitched over the stump with Lembert suture as a protective barrier to further infiltration of leakage; some operators invaginate the stump and stitch the peritoneal surfaces. The appendix has been found floating in the abscess, detached from the cecum; pericecal abscess may exist and the appendix seem normal; removal of the latter would be conservative and prophylactic against future mischief. An appendix with its cecal end closed, containing a foreign body or secretion, or enlarged, ulcerated, sloughing and perforated or adherent, should always be excised, and the stump before being covered by peritoneum should be iodoformized. The abscess cavity and the peritoneal cavity should the latter be involved, must be irrigated with hot distilled water, 98 to 105 degrees.

A long glass drainage tube should be placed to the bottom of the pelvis in the hollow of the sacrum, the abscess cavity drained with a large rubber tube, the wound coaptated with the necessary sutures, supported by rubber adhesive strips and dressed aseptically, pro re nata. Dr. Nicholas Senn's conclusions are these, viz:

1. All cases of catarrhal and ulcerative appendicitis should be treated by laparotomy and excision of the appendix as soon as the lesion can be recognized.

2. Excision of the appendix in cases of simple, uncomplicated appendicitis is one of the easiest and safest of all intra-abdominal operations.

3. Excision of the appendix in cases of appendicitis before perforations have occurred, is both a curative and prophylactic measure.

4. The most constant and reliable symptoms, indicating the existence of appendicitis, are recurring pains and circumscribed tenderness in the region of the appendix.

5. All operations should be done through a straight incision, parallel to and directly over the cecum.

6. The stump after excision of the appendix should be carefully disinfected, iodoformized and covered with peritoneum by suturing the serous surfaces of the cecum on each side over it with a number of Lembert stitches.

7. The abdominal incision should be closed by two rows of sutures, the first embracing the peritoneum, and the second the remaining structures of the margins of the wound.

8. Drainage in such cases is necessary and should not be dispensed with.

We must know how to deal with adhesions, lacerations, necrotic spots, perforations and fistulæ of the bowel and adhesion of appendix to other organs such as the liver, gall bladder, uterus, Fallopian tube, ovary, omentum and sigmoid; removal of pus tube; ovarian abscesses, omental and mesenteric abscess, ovarian cyst with twisted pedicle, and suppurating ovarian cyst. We may meet with one or more of the complications of ruptured extra-uterine pregnancy, psoas abscess, or foreign body, such as extra-uterine bone. Often in suppurative appendicitis with perforations and purulent peritonitis the indication will be to incise into the peritoneal cavity and abscess, evacuate the pus, wash out the cavity, drain and wait until a future time to remove the offending cause, or deal surgically with other complications. More surgery than this, will often mean death of the patient, and the aim of every true surgeon should be to save life; and then when the patient's life has been saved by the primary operation and he has recovered sufficiently the ideal or secondary operation can be done to remove the offending cause. Should the appendix have sloughed away nature may have hermetically sealed the stump and prevented fecal extravasation; should it be intact, then amputation with invagination of the peritoneal surface, continuous or Lembert suturing is the model way. First, however, antisepticise the stump with carbolic acid, mercuric bichlorid and iodoform applied locally before suturing.

If necrotic spots of cecum exist, they must be excised with scissors. If small or large rents of cecum

exist, the peritoneal coats must be turned in and sutured with Lembert suture. In addition to this the stump or traumatism of the cecum may be reinforced and strengthened by omental graft, or the meso-appendix or two inches of parietal peritoneum may be excised, the lips of the peritoneum sutured and the patch applied to stump of appendix or cecum. These measures will prevent frequent formation of adhesions, and should be done when necessary and possible, since denuded surfaces of peritoneum are liable to become permanently adherent to adjacent abdominal viscera.

Case 1.—Patient, male, age 12 years. Received a blow over head of cecum, worked several days after injury, no discoloration of skin or swelling. In two weeks pain returned, locomotion impaired, leg flexed on thigh, later on abdomen. Patient in this condition three weeks, with fever, one physician an irregular, "said he had hip-joint disease." Another "typhoid fever." When seen by the writer, the pulse was 130, and he was having two chills a day with copious perspiration; temperature 103.5 F., tumor over appendix; section, irrigation and drainage saved boy's life. Removed a quart of foul pus. Temperature and pulse normal in twenty-four hours. Boy's father and uncle—woodsmen, acted as assistants.

Case 2.—Patient, male, age 12 years old. Was hurt over the right side of abdomen. Ten days after began to complain of pain over McBurney's point, impaired motion and locomotion, leg and thigh flexed, pulse and temperature elevated, tumor size of a large orange outlined over appendix. Operation was advised and accepted. Drs. Joseph Pettus and Steele Bailey consultants. An incision one and a half inches long with evacuation of a quart of pus; irrigation and drainage, rest and asepsis saved patient's life. Remaining part of peritoneum cavity was fortified by plastic lymph and not disturbed. Appendix not found, temperature and pulse normal next day.

Case 3.—Male, age 25 years, former health good, engaged in farm work, mowing a few days after returning from college. From to and fro motion of right arm, with elbow over cecal region, pain with tenderness developed without redness of skin or swelling; temperature elevated in evening with recessions in the morning, simulating typhoid fever, gurgling also present about the eighth day; pain and tenderness became more intense, and swelling began to appear. Appendicitis was diagnosed by Dr. J. H. Parker, of Corbin, and confirmed by Dr. R. T. Ramsey, of London, both of whom advised surgical treatment and called the writer to operate. On examination a tumor the size of a cocoanut could be mapped out over McBurney's point; section, irrigation and drainage, asepsis with rest saved patient. Almost or about one gallon of pus was removed from right half of peritoneal cavity, which was an enormous abscess extending from the liver to Poupart's ligament and medial line of abdomen to right lateral wall. The appendix could not be found, the adhesions were not disturbed, the abdomen was drained for two weeks, irrigated and dressed twice a day for this time; patient third week after operation dismissed. Had we hunted for appendix by breaking up adhesions and infected the other half of the peritoneal cavity we doubtless would have lost our patient. To do life-saving surgery we must know when to stop.

Case 4.—At Knoxville, Tenn., I was called in consultation with Dr. Jones to see a former Kentucky boy, for recurrent appendicitis and advised abdominal section and the family declined operation at that time, "said if our prediction was proven correct in the future, and another attack occurred they would submit to operation;" he did have a recurrence and was operated upon by Drs. Jones and James M. Black, both former Kentucky general practitioners, with section, drainage and irrigation. On account of the extensive suppuration and subsequent perforation of cecum, the abdomen had to be opened a second time, and resection of bowel done for perforation, and still the patient made a beautiful recovery.

Case 5.—In April, 1895, Dr. Eugene J. Brown, of Mt. Vernon, Kentucky, sent the writer a telegram to come and do laparotomy. As I was from home on another operation that day with Drs. Wesley of Middleburg, Kentuky, Dr. J. F. Peyton, responded to the call, and found a case of perforated appendicitis with purulent peritonitis. Abscess wall bursted and pus in possession of abdominal cavity. Drs. Brown and Peyton operated by section, irrigation and drainage, and saved patient. The appendix had sloughed and disappeared, the stump was sealed off from the peritoneal cavity by adhesive inflammation and finally by definitive healing. In two weeks patient was in town on horse-back, hair parted in the middle, and pistol round his waist and drunk as the devil could wish for.

Case 6.—Mr. G., age 20 years; has had one or more attacks of pain over caput coli, indisposition for a few days; was unloading cross-ties and said he strained himself in lifting, by placing elbow against his right side; that night his former pain returned and increased in severity and was worse than ever before, incapacitated him for labor, and prostrated him in bed. Dr. Samuel Perkins, of Bee Lick was called, and found patient in great pain over McBurney's point with nausea and acceleration of pulse, increased temperature and respiration, legs and thighs flexed, abdomen tender to touch; and pain only slightly relieved by hypodermics of morphia; free purgation and hot applications. He diagnosed appendicitis; advised operation which was accepted, and sent for the writer to come and operate, and bring Dr. W. B. O'Bannon to assist; patient was beautifully prepared and on section there was found an omentum adherent to abdominal wall and a circumscribed abscess occupying the right lower fourth of abdomen with purulent peritonitis of this locality. The abscess was perforated, emptied and irrigated and a suppurative and gangrenous appendix found with large perforation at its junction with cecum, and containing an appendolith one by three-fourths inch in size. The latter was removed, the appendix enucleated, the meso appendix carefully separated from it and a gangrenous portion of cecum excised with scissors; the lips of wound were approximated, serosa to serosa, and Lembert suture used; the length of wound was 2½ inches long after suturing was finished; the meso-appendix was turned over cecal wound to patch it and kept in apposition by a continuous suture; the peritoneum, was scarified to secure adhesive union, and hastened definitive healing. In two weeks the abdominal wound had healed without an unfavorable symptom. Recovery has been complete.

Case 7.—Miss —, age 8 years; former health good; ate freely of frozen apples; on last Sunday of January 1896, at night, was taken ill with purging, vomiting and pain in bowels which was taken to be colic by parents; and home remedies used for a day or two. When the writer was called he found patient in the throes of appendicitis with circumscribed peritonitis; for three days patient had high pulse, temperature and quick respiration; legs and thighs flexed; and suffering intensely. On the fifth day, the symptoms all greatly improved and the patient was better for two days, when former symptoms returned in severity— case much aggravated; operation advised, accepted and performed on the eighth day, a large globular mass was found over caput coli. Drs. Steele Bailey and J. F. Peyton present in consultation and assisted in operation. On opening peritoneal cavity with one and half inch incision, pus welled up into wound, the right lower fourth of peritoneal cavity was involved in one huge appendicecal abscess. The rest of the peritoneal cavity was protected by a lymph wall. The appendix could not be found and adhesions were not broken; section, irrigation, drainage, rest and aseptic after-treatment cured patient in three weeks.

Two cases of non-operative treatment of recurrent appendicitis at last accompanied with purulent peritonitis and death. Two patients who had had former attacks of recurrent appendicitis were treated for colic with opium, poultices and dirt by ignorant incompetent physicians and promptly died. Post-mortem showed clearly that both could have been saved by timely life-saving surgery in skillful hands.

The successful issue in these cases is due no doubt to hot water and soap bath before operation and also in most cases to free purgation, section, thorough evacuation, irrigation and drainage of pus cavity and abdomen, removal of the diseased organs, if not previously sloughed away, also of the pyogenic debris. The most complete irrigation with hot distilled water, dealing surgically and quickly with laceration, fistula and necrotic spots of bowel, complications of appendix and cecum *per se* and other organs. To these, with subsequent asepsis and rest, assiduous watchfulness and attention of nurses, general practitioners to assist in operations and give the after-treatment, we owe our success.

The conspicuous absence of meddlesome neglectful nurses and young internes, with holding of chemic antiseptic from the abdominal cavity, the avoidance of dirty antiseptics and dirty asepsis, so often seen in the general hospitals, and to total prohibition of opiates

and the inestimable advantages of pure country air ladened with ozone and sun-light also had their parts. With all nature in harmony the country gives the surgeon many, many advantages over our city confreres and enables these general practitioners to make diagnosis, assist in operation and give after-treatment.

We must constantly remember that our aim is to do life-saving and not ideal surgery; for ideal surgery is only done in the *deadhouse*. The tyro in abdominal surgery, the "pseudo-specialist" will get turned down oftener, do more incomplete neglected work in the abdominal and pelvic cavities than any where else in surgery. Stanley's "March through the Jungles and Exploration of Africa," "Travels up and down the Congo" are child's play when compared to the successful work of the skillful abdominal surgeon. Today the harvest is ripe and still first class abdominal surgeons are few, because too many of our present crop are "younglings"—graduates from second or third class medical schools and attend three or six weeks at some polyclinic, or go to Europe, live a kind of nomadic life for a month or six weeks, return, and call themselves special surgeons, before they have even vaccinated a baby, lanced gums of teething children, or had any experience in cholera infantum. Dr. J. Marion Sims and all other great and illustrious special surgeons, served a long apprenticeship in diseases of children and general practice before they began major surgery; and in the future, so must all successful surgeons do likewise—the greatest, noblest, most useful, purest, best and most skillful doctors beneath the canopy of heaven today are the general practitioners. They are the back-bone and sinew of our illustrious profession; they are our giants and the custodians and must be the final judges of our work and skill.

Professor Senn states in substance in his book on intestinal surgery that every county-seat or town of one thousand or more population should have a surgeon prepared and equipped to do the operations of abdominal surgery. Again he has stated you must be careful or you will have every cross-roads doctor doing an operation for appendicitis. The warning has been timely but not heeded.

Dr. Senn certainly could not mean the active wide-awake, equipped, thoroughly prepared country physicians, of large towns, who have served an apprenticeship in abdominal surgery under the great surgical lights of our profession, like himself, the Prices, Wyeth, McBurney, Ashton and others too numerous to mention. Abdominal surgeons have proven idiopathic peritonitis is a *myth* and that peritonitis is the surgical disease and should be treated surgically. Recurrent and suppurative appendicitis with or without purulent peritonitis is a surgical disease like gun-shot and stab wound of abdomen, and should be treated early with good first-class surgery. The surgeon knows what he can do by treatment—knows he has a cause and effect, and the physician when in doubt procrastinates; it should be, when in doubt send for a surgeon,—cure effect, by removing the cause. As a rule the average physician, or as Professor Senn terms them the "cross-roads doctor," would rather take their chances of escaping from the lion's den than try to do a laparotomy for appendicitis.

The writer most respectfully acknowledges the valuable information received at the operations and from literature of Drs. Joseph and Mordecai Price, William Easterly Ashton, and Professor Senn and Morton, Sr.

DISCUSSION.

Dr. J. N. Baughman, Flat Lick—I regret that I arrived a little too late to hear Dr. Carpenter's paper on this subject, but I want to speak in behalf of "scrub" doctors. I have noticed that in nearly all of the papers read before this and other societies that physicians tell us just how to do the operation in appendicitis, whereas the after-treatment is entirely left out. In cases of appendicitis, just as soon as we cut down we find there are inflammatory adhesions. We break these up, and if they were let alone in a great many cases the wound would unite. One of the nicest preparations to prevent readhesions is aristol or iodoform. Aristol has no poisonous effects, and when applied to inflamed tissue it forms with the lymph a thin film which acts as an impenetrable barrier between the white leucocytes on the healthy side, so that the few wandering bacteria by aseptic preparations are left on the other side in almost hopeless condition. They have no chance to get through. Aristol is perfectly innocent in its action. It will remain for an unlimited time and prevent readhesions. This is one thing that we should consider. We should aim to do work that will reflect credit upon ourselves, as well as save the patient.

Drainage is an important thing. I remember having a case to look after some time since in which I used a drainage-tube, but I do not think I shall do so again, for I think that pure aseptic gauze makes the best drainage we can have. Within twenty-four hours after the operation we can dispense with the drainage-tube, provided we have an ample supply of aseptic gauze on the outside to absorb all the products from this drainage-tube.

Another point struck me forcibly, and I do not know but that it is a new idea. In Halstead's operation for hernia a number of mattress wire sutures are introduced. Sometimes after operating upon a case of appendicitis we get hernia as a result in spite of all the precautions we take. Would it not be a good idea in some cases, where we have fear of getting hernia, to put in a lot of aseptic wire so that the abdominal contents could not possibly get through. I do not know whether this would work. I think it would. It does in hernia operations, and why would it not in cases where we perform laparotomy?

Dr. A. M. Cartledge, Louisville—There are one or two lessons to be taught from the report of the cases to which we have just listened. We have had reported a case in which a patient had subsequent pyemia, metastatic abscess of the liver and rupture into the ileum an inch and a half above the ileo-cecal valve. The next lesson we have to learn is that 90 per cent. of the cases of suppuration rupture into the intestine. A patient who has had an abscess rupture into the intestine is not well, and such patients creep about for years and years. Many cases of supposed recurrent attacks of appendicitis are simply recurrent abscesses filling up and periodically discharging into the intestine. It is an extra-appendicular abscess. I think that it is the main lesson the papers teach, and it is a very important one.

Dr. H. H. Grant, Louisville—The profession perhaps do not think enough about the pathologic condition which exists in appendicitis. There is a foreign body in all cases of diseased appendix, and not only that, it has become now foreign material, inflamed, suppurating, and oftentimes gangrenous. This condition exists in a large proportion of cases of appendicitis which are severe enough to be attacked surgically. In a large proportion of cases the appendix is found either perforated or gangrenous. If it were possible for the X rays to show us the condition present in these cases of appendicitis which are supposed to get along well, in 95 per cent. we would see a condition which would encourage us to operate even if the patient is doing well. If we bear in mind that nearly all of the cases terminate fatally, while a few recover in spite of neglect, it would encourage us to demand early operative interference. The important point for us to remember is that the appendix

is a diseased, infectious foreign body accomplishing no possible good, and that its removal can be safely and easily effected under favorable conditions, and for this reason early operation should be instituted where the indications are sufficient to warrant us to believe it to be a surgical condition. Little harm can come if an operation is done too early, or if it is done even where it was not necessary. In a large proportion of cases fatal results follow the neglect of the golden opportunity. This has been impressed upon me by the observation of a recent case. If we bear in mind the fact that we have in these cases infectious material to deal with, and if we could picture in our minds the condition underneath the skin, we would be encouraged to operate in many instances where we perhaps postpone it from day to day until the time for satisfactory operative interference has passed.

Dr. ARCH. DIXON, Henderson—It is the duty of the surgeon or physician, as soon as he makes a diagnosis of appendicitis, to call in a surgeon and operate. I recall three fatal cases simply because the attending physician temporized about the matter, thinking perhaps the cases would get better. If they had been operated on promptly when the diagnosis was made they would have gotten well. I have been surprised to read some recent remarks by Dr. Hunter McGuire, of Richmond, in which he advised waiting to see what the patient is going to do. My experience teaches me that the very moment that a diagnosis of appendicitis is made we should operate. I believe it is the proper thing to do.

Dr. J. G. CARPENTER, Stanford—Pus in the abdomen or peritoneal cavity demands prompt surgery. That many patients recover from appendicitis without operation is a fact. I have had seven patients in my practice to recover without operation, and seven cases with suppurative appendicitis recover with operation. Two of my cases died from want of operation, as was proven by postmortem examination. They could have been saved by prompt surgery. Four other cases were complicated with pus tubes, ovarian cystoma, ovarian abscess and fibroids, and they recovered. I saw these last cases in the practice of Dr. Price of Philadelphia. Prompt surgery was resorted to, pus tubes and appendix were removed, and all made prompt recoveries. But where complications exist, where the patient is dangerously sick, I believe it is better to do conservative surgery. Open the abdomen, irrigate and drain, for if we go hunting around for the appendix and breaking up adhesions we will infect the remaining portion of the peritoneal cavity and lose the life of the patient. So it is a grand thing to know when to stop, and I believe most of our fatality occurs in these suppurative cases where meddlesome surgery has been done, the surgeon not knowing when to stop. There is no reason why the general practitioner should not operate himself. There is no reason why he should not be posted in the pathology after he has served an apprenticeship in abdominal and pelvic surgery. It is safer for him to operate for appendicitis than to send a hundred miles for a surgeon, for in doing this the patient may die before the surgeon gets there. It seems to me all folly for the general practitioner not to able to operate on these cases. He should operate, and if he does not do so he is derelict in his duty.

As to the after-treatment, the general practitioner who is up to date is a safe man. No better man or physician can be found to administer the after-treatment. If he is the physician that he ought to be, the patient will fare as well at his hands as in those of the surgeon. We will find cases where it is best to use a drainage-tube, and in other instances we may use gauze.

Dr. R. D. PRATT, Shelbyville—I must differ with my friend Dr. Carpenter. I do not think that there are many general practitioners scattered throughout the country who are expert as abdominal surgeons. I think there are few abdominal surgeons among general practitioners, and it seems to me that when we get these cases that require operation they should be relegated to the specialist. We have a number of eminent abdominal surgeons who can do this work well, and therefore I would take the opposite view, that it is almost criminal for a general practitioner, when it is easy to get an abdominal surgeon, to go into the abdominal cavity.

I do not agree with Dr. Dixon that all cases of appendicitis are surgical. In the twelve cases that recovered and that were reported by me, I will acknowledge that two of them were probably surgical, but they got well in spite of medical treatment. One of them, a young woman, who had abscess which ruptured into the bowel, had perfect drainage take place, and as far as I can learn she has had no recurrence. This was three or four years ago. I think at least one-half of the cases of milder type will recover without operative interference, provideded that there is not too much medicine given. This leads to the one point that I particularly desire to emphasize, and that it is the use of opium. I do not believe opium should be given except for the excruciating pain that some of these patients have, and then only in sufficient doses to make the pain bearable.

LARYNGO-PULMONARY PHTHISIS.

Read Before the North Chicago Medical Society, Dec. 28, 1896.

BY C. J. WHALEN, M.D.

INSTRUCTOR IN RUSH MEDICAL COLLEGE AND IN CHICAGO POLICLINIC.

In speaking of phthisis it is a fact that a large number of cases are complicated by a disease in the larynx, which we know is tuberculosis. It seems strange that, as tubercular diseases in the larynx so often accompanies a similar process in the lungs, it should not more frequently be encountered as a primary disease.

It has been questioned by many careful observers, whose names carry much weight of authority, whether laryngeal tuberculosis ever occurs primarily; they insist that the primary lesion was in the lungs, and that when the laryngeal disease developed, the lung disease was marked by it or that the tubercular process while present in the lungs was not recognizable by physical signs.

Most authors writing after improved methods of diagnosis and the use of the laryngoscope, seem to agree, that while it may occur primarily, clinical facts present a strong weight of evidence against such an occurrence. I have never seen tuberculosis of the larynx when I was not able to detect signs of similar condition in the lungs.

Personally I believe that the disease does occur primarily in the larynx, although it rarely if ever gets into the hands of the physician before lung symptoms are evident. In the light of our present knowledge of tuberculosis, it would seem inconsistent to state that the larynx, of all organs of the body, is exempt from primary deposit of tubercle. When it does develop in the larynx, it is as a new center, and not extending by continuity of tissue. The influence of primary laryngeal tuberculosis on the lungs is sooner or later to develop pulmonary phthisis.

The diagnosis of the disease in the larynx of the living subject is comparatively easy after extensive lesions in the lungs have taken place. Few of us have reached or ever will reach that degree of perfection in the auscultatory art that will enable us to recognize positively the incipient lesions of pulmonary phthisis.

A person would need to be extremely skilled to say assuredly in a case of laryngeal phthisis that there are no pulmonary lesions; although a physical examination of the chest may be negative, it ought not by itself to

be taken as absolute, when we remember how unsatisfactory often the signs and symptoms of incipient phthisis are.

Statistics show that laryngeal tuberculosis occurs in about 30 per cent. of cases of consumption. It is more frequently met with in the male, and like phthisis pulmonalis it is seen more between the ages of 20 and 30 years.

Etiology.—The discovery by Koch of the bacillus of tubercle in 1882 placed beyond doubt the specificity of the throat manifestations in tubercular patients. The tubercle bacillus, although being the essential cause of tuberculosis, is after all from a prophylactic standpoint a minor element in its many etiologic factors; every one of us at some time in life would take so many tubercle bacilli into our system that, were the other etiologic factors favorable, we would all die of tuberculosis.

The autopsy table shows that in a large percentage of cases examined where death was due to other causes, there is evidence discoverable of the conquered onslaughts of the bacillus. Decreased power of resistance and unhygienic influences are also to be mentioned as causes of phthisis, and in proof of this claim we have only to point to the high rate of mortality from tuberculosis in those confined to prisons and workshops.

It is a well established fact that a large percentage of all dairy cows, and especially those of the Alderney breed, die tubercular. It is the children of the rich and well to do that are brought up on this milk, and it is this class that contains the greatest proportion of tubercular children.

All other factors entering into the etiology of phthisis are grouped under the head of predisposition.

Symptoms.—Two forms of tubercular laryngitis are found clinically, acute and chronic. The early manifestations of the acute form are indicated by marked congestion of the mucous membrane. The chronic and much more frequent form is early manifested by marked pallor of the mucous membrane. Aphonia, dysphonia, dysphagia, stridulous breathing, dyspnea and cough and anemia of the larynx, are the symptoms usually met with. Infiltration of ary-epiglottic folds, is an early symptom, as is infiltration of the inter-arytenoid folds later on.

The dysphagia of laryngeal phthisis is terrible; indeed, there is no disease known to the practitioner of medicine in which the patient suffers more than in the later stage of laryngeal phthisis. These patients have the appearance of one suffering from pulmonary tuberculosis. The skin is sallow, hot and dry, or bathed with profuse sweat. Hoarseness is present in nearly all the cases. More or less dyspnea is early noticed, especially upon exertion. Symptoms of laryngeal obstruction occur late in the disease. In a large percentage of cases the act of swallowing is attended by so much discomfort that the patient prefers to suffer from hunger and thirst rather than swallow.

The disease in the larynx progresses in proportion to the disease in the lungs, but sometimes the laryngeal disease stops at a non-ulcerative stage and the swelling of the epiglottis and arytenoids with paresis and thickening of the vocal cords alone remain for months.

When there is ulceration over the arytenoids, parts that are never at rest, but move with every breath, at every effort in swallowing or speaking, they are constantly irritated until they become the cause of indescribable torture.

Prognosis.—In 1880 Morrell Mackenzie in his classical work expressed the concensus of opinion of the laryngologists up to that time. He claimed "that the prognosis in laryngeal phthisis is always unfavorable, and is not certain that any case can ever recover."

The prognosis of sixteen years ago has been considerably modified by the results which have attended the efforts of laryngologists for the last few years. Indeed, cases of spontaneous healing of tubercular ulceration of the larynx have been reported by Heryng, Bauveret, Virchow and Jarvis.

J. Solis Cohen (JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, 1883, page 261) "mentions a case as being alive and doing well eight years after the establishment of complete health."

Lennox Browne (*Jour. Laryng., Rhinol. and Otol.* London, 1894, page 185) says "he can only point out one case in his practice in which a cure was effected." In this case the larynx, pharynx and one lung were involved, tubercle bacilli being demonstrated in the scrapings from the granulations and in the sputa. Seven and one-half years after her first visit to him her lung remained healthy, she had gained in weight, and no bacilli could be found in the sputa.

In a large proportion of reported cases of cures of laryngeal phthisis, the time elapsing between their first visit and the report is too short to make them of great value as statistics, but it is satisfactory in this connection to note that healing of tubercular ulceration of the larynx does occur.

I find in looking over a large number of statistics that the proportion of recoveries are exceedingly small; perhaps not more than one-fourth per cent. if all cases of this disease were reported, but the fact of an occasional recovery under treatment affords sufficient satisfaction to indulge in the hope that with our constantly improving methods of diagnosis, the general practitioner who sees the patient first will recognize the laryngeal lesions early and will apply appropriate treatment, or refer him to a specialist, in place of devoting all his skill and knowledge to arresting the lung symptoms, forgetting that the secondary trouble in the larynx may be causing his patient more discomfort and weakening him more rapidly than the disease in the lungs.

In making a prognosis as to time it is well to remember that the very acute cases terminate fatally in from six to twenty-four weeks. Those showing a more chronic tendency run their course in from six months to three years. These patients do not die from the effects of the tubercular disease of the lungs, but from exhaustion caused by pain and starvation, dependent upon an ulcerated larynx, and where the ulceration was over the arytenoids, these patients have been known to suffer the pangs of starvation and die rather than endure the indescribable torture caused by attempts at swallowing. These cases are very rapidly fatal; they die of inanition generally before the lungs are very extensively involved.

In making a diagnosis of laryngeal phthisis it is well to remember that one of the first symptoms in point of time will be laryngitis. It will have all the symptoms of chronic catarrhal laryngitis including the exhausting cough. There is no disease of the larynx which is so easy of diagnosis when met with in its typical form as tuberculosis. "The clubbing"

of the arytenoids is generally looked upon as pathognomonic of tuberculosis. In the vast majority of cases the lung lesions begin at the apex and it is almost invariably so in laryngeal phthisis.

Treatment.—The chief modes of treatment are medical, surgical and climatic.

The medical treatment should be the same as in uncomplicated pulmonary consumption; namely, cod liver oil, oil of cloves, calcium chlorid, iron, hypophosphites, creosote, or better still, guaiacol, which possesses all the antiseptic properties of creosote and is free from many of the objections to that drug. It is essential that the guaiacol be perfectly pure, as otherwise it may cause dyspepsia, a sympton that is present in a large number of cases of phthisis. The guaiacol should be given at meal time and on no account whatever when the stomach is empty. It should be dropped into a capsule just before being taken, beginning with three minims and slowly increased until the patient is taking ten, fifteen or even thirty minims. I can recall two cases in which this mode of medication was pursued, in which I was able to administer forty minims three times a day without the slightest gastric disturbance.

Oil of caryophyllum is less irritating to the stomach than guaiacol and should be given under the same instructions, except that it can be taken oftener, and when administered between meals the patient should take a glass of milk with it if possible. Like guaiacol it should never be taken on an empty stomach lest it cause irritation.

It may be necessary to precede the meal by inducing anesthesia of the parts by means of local anesthetics. It has been found that these patients suffering from painful deglutition can swallow more comfortably by assuming the prone position as suggested by Morris Wolfenden (*Lancet*, London, July 2, 1887). The patient is to lie flat on his abdomen with his feet and body higher than his head, and by means of a tube sucks the fluid up and swallows it. By this method he is able to take plenty of nourishment, while in the erect position he could not take a swallow without suffering excruciating pain.

For producing local anesthesia, I find that a solution of guaiacol in olive oil in strength from 15 to 40 per cent. sprayed into the larynx fifteen minutes before eating will produce an anesthesia which lasts for many hours. In cases where this is disagreeable, a spray consisting of morph. sulph. grs. iv, acid carbolic and acid tannic, one-half dram of each, glycerin and aqua dest. q.s. ad one oz., sprayed into the throat will temporarily relieve the dysphagia. This should be applied one-half hour before eating. This solution was recommended by Dr. Ingals as long ago as 1885 and the fact that such an experienced and painstaking operator as Dr. Ingals is using this solution in his practice at the present time speaks volumes in its favor.

The use of cocain as a local anesthetic is not to be advised except in very advanced cases, and toward the end even this will have to be given up, and codein and morphin will be our only means of preventing unnecessary suffering.

Under prophylactic treatment the early lesions of laryngeal phthisis yield promptly, but unfortunately for the patient, they seldom come into the hands of the laryngologist until extensive ulceration or destruction of the lungs renders the prognosis hopeless.

It is unfortunate that the laryngeal symptoms in these patients should be treated by practitioners of medicine, without an inspection being made of the larynx, but is this so much to be wondered at when we think of the small number of physicians skilled in physical diagnosis who have any technical knowledge of the use of the laryngoscope?

The treatment of the larynx demands above all on the part of the patient complete silence, I admit that it is not always very easy to obtain this, but it should be observed as far as it is possible to do so.

For my own part I am convinced that of the different methods of topical applications for the larynx, all remedies are best administered in the form of spray under high pressure. The intra-laryngeal insufflication of powders has not proven satisfactory with me.

Dr. Lennox Browne claims to get the best results in the preulcerative stage from a spray of menthol, or menthol and iodol. I have used it faithfully in a limited number of cases and I must confess that I derived little if any benefit from its use.

Lactic acid seems to have stood the test of time admirably well, although it has been unfavorably reported on by so good authorities as Schnitzler, Massei and others. The concensus of opinion seems to be that as symptomatic treatment, it excels every other known. It has certainly retained the confidence of those who have had the largest experience. The patients gain in weight, the appetite improves, the night sweats diminish and the expectoration becomes less purulent.

The strength of the solution used should vary from 20 to 60 per cent., according to the toleration of the larynx and the necessities of the case. It should be applied with a probe wrapped with cotton, considerable friction being used.

A spray of tri-chlorid of iodin, varying in strength from $\frac{1}{4}$ to 1 per cent., seems to give satisfaction in the simple catarrhal form before ulceration has taken place.

In a case that had resisted the modes of treatment just mentioned above, I was able to promote healing of the ulceration by a solution of guaiacol in strength from 15 to 50 per cent. in olive oil, varying it according to the toleration of the patient; in one of my cases a solution of 50 per cent. gave little if any discomfort, cicatrization took place within six weeks, considerable infiltration however remaining for eight months.

Guaiacol is a local sedative and lessens the pain accompanying the ulceration, not being escharotic, it continues to be absorbed and its effects are much more lasting than other local anesthetics.

The surgical treatment includes extrinsic and intrinsic operations. Under extrinsic operations are to be considered extirpation of the larynx, which I believe has never been done for tuberculosis.

Tracheotomy, while it might seem suggested in some cases, should be done only for relief of dyspnea. In a few cases it distinctly reduced the swelling within a few weeks and death ultimately ensued from pulmonary disease.

Intrinsic operations on the soft parts consist of curetting the larynx, and it is only resorted to where the pulmonary conditions are favorable and the laryngeal infiltration is located at an accessible point in the larynx. A more satisfactory method is that advised by Professor Krause, who uses a set of double sharp spoon instruments made for the special object of cutting away portions of diseased tissues, applying after

the operation, lactic acid to the denuded part; this operation is claimed to be very painful even under cocain, and there will probably be considerable discomfort for a few days afterward; this method should not be thought of if there is much involvement in the lungs.

I do not think that these patients should be deprived of the one great chance to prolong their lives by change of climate. Patients who can afford the luxury of a residence in the South should be sent there, where no doubt spontaneous recovery is greatly favored. The choice of climate becomes a matter of importance in many instances. A location should be selected in which there is an absence of damp soil. A dry aseptic atmosphere seems to be most desirable to these patients. Fortunately for those afflicted with phthisis, a desirable climate can be reached in a few hours' ride. Mexico, New Mexico, Florida, portions of Alabama and Southern Georgia are desirable winter residences. During the summer months a suitable climate may be found in the Adirondacks in New York, Montana, South Dakota and portions of Colorado. It is especially desirable to have our patients in the more southern climates during the months of February, March and April.

In conclusion, allow me to outline briefly a few histories recording some good results from the local use of guaiacol in laryngeal phthisis.

J. H. B., lawyer, age 30, called on me in October, 1891, complaining of a hacking cough, which had begun to annoy him about eight or ten months previously. He attributed all his troubles to a catarrhal condition of his throat and nasal passages. I found upon inspection of these parts, the inferior turbinated bodies in both nares were greatly swollen, three-quarter filling the cavities. The uvula was greatly elongated, which together with a chronic pharyngitis was responsible for the continual effort at clearing the throat.

An examination of the chest revealed moderate dulness over the right apex as low as the second rib, harshness of respiration over the same side as low as the sixth rib, together with numerous subcrepitant râles heard over the same locality only as low as the third interspace.

After amputation of a portion of the uvula and a thorough cauterization of the nares, he was placed on large doses of maltine with hypophosphites, together with creosote in from 5 to 10 minim doses after meals. Under this treatment he improved rapidly and at the end of ten months all active manifestations of the trouble in the lungs had disappeared.

Patient remained well for one year, when on a damp, chilly day while sight seeing at the World's Fair, he contracted a severe cold which was accompanied by slight hoarseness that gradually increased in severity.

Six weeks later he came to consult me as regarding his hoarseness and the return of his lung symptoms. I found upon inspection of the larynx, the usual condition met with in chronic laryngitis. Physical examination of the lungs revealed practically the same signs as before, with an increase of subcrepitant râles. I advised a return to his former medicine, but substituting guaiacol in place of the creosote, as I found it to be less irritating to the stomach. He was advised to begin with 5 drops and gradually increase it to 20 drops, in capsules, after meals. At the same time I began a spray of acid tartaric, grs. 1, acid carbolic, zinc sulph. āā grs. 2, aqua dest. 1 oz. This I found could be substituted by a much stronger one, consisting of acid tartaric grs. 2, zinc sulph. grs. 15, and aqua dest. 1 oz.

In spite of these vigorous applications, at the end of two months his hoarseness was more pronounced. Examination revealed beginning tumefaction of the arytenoids and ary-epiglottic folds, with infiltration of the ventricular bands.

Being now convinced that I had to deal with a case of laryngo-pulmonary phthisis, I began the daily use of a spray to the larynx of a $\frac{1}{4}$ per cent. of the trichlorid of iodin, which I soon found could be increased to $\frac{3}{4}$ per cent., later to 1 per cent. without any discomfort whatever to the patient. This treatment was continued for two months, when ulceration of the left vocal cord warned me that more heroic treatment should be resorted to. I substituted lactic acid in varying strength according to the tolerance of the throat, but after three weeks the general condition of the throat seemed to be growing worse. I resolved to try local applications of guaiacol (being the first time it was ever used in such cases), beginning with a 20 per cent. solution in oil of sweet almonds. A spray was made daily to the larynx, the strength being increased to 25, 30, 40 and even 50 per cent. with very little discomfort. These applications were followed in a few weeks by a gradual but sure improvement, the ulceration healing completely in less than two months, some swelling remaining for about ten months. The general improvement of the patient, with arrest of lung symptoms went hand in hand with improvement of the larynx.

Examination of the lungs, March, 1896, four and a half years after his first visit to me, showed no extension of his lung trouble, although numerous tubercle bacilli were found in the sputa by Dr. Frank Jay and myself.

Status præsens: The larynx is apparently normal, except where the left vocal cord was partially destroyed, the remaining portion of the cord being much redder in color than its fellow. Some hoarseness still remains, but this has improved wonderfully during the last year. This is all the more remarkable, because he has been obliged to talk many hours a day, being employed as an attorney in the claim department of a large corporation, and he has not been absent from his duties on account of sickness during the whole time he has been under my care, except when taking his yearly vacation, when he has gone South during the month of March.

A microscopic examination, July, 1896, revealed only a very few bacilli on a number of slides examined, and at my last examination, three years after the beginning of his laryngeal symptoms, I was unable to find any bacilli after a very careful examination.

W. J. O., American, age 20, referred to me by Dr. J. B. Murphy. I found to be in the last stages of laryngo-pulmonary phthisis. Death from inanition seemed close at hand. Degultition being so very painful, I resolved to try the guaiacol, in 25 per cent. solution as before, applying it by means of a Davidson's No. 59 atomizer, the applications being made three times a day, one-half hour before taking nourishment. This seemed to relieve the dysphagia in a marked degree, although he died two weeks after my first visit. I am certain that this short time preceding dissolution was rendered much more comfortable than such cases usually are by other methods of treatment.

F. O. R., machinist, age 22, called to see me in June, 1896, complaining of a cough, which had lasted for six months. He had lost gradually in weight and strength, had frequent night sweats, loss of appetite and gradually increasing hoarseness for four weeks, with slight dysphagia for one week. Temperature 103, with a full regular pulse beating 100 per minute.

A physical examination of the chest revealed decided dulness over the left apex as low as the third interspace, with harshness of respiration over the same region, together with very numerous subcrepitant râles. Inspection of the larynx revealed a clubbing of the arytenoids, much more marked on the right side than on the left. A small superficial ulcer could be plainly seen on the left ventricular band, and a microscopic examination of the sputa revealed numerous tubercle bacilli.

I made daily applications to his larynx of a 30 per cent. solution of guaiacol, which he claimed made his throat feel very comfortable and with marked improvement in his hoarseness. He discontinued his treatment at the end of three weeks, because of some intercurrent indisposition, and I subsequently learned that he died of acute nephritis ten days later.

To summarize, 1. We are still in need of a panacea in laryngeal phthisis. 2. Trichlorid of iodin, guaiacol and lactic acid are the best local remedies. 3. Good results have been reported from cutting away portions of the diseased tissues and applying lactic acid. 4. Guaiacol, or a solution of morphin, tannic and carbolic acid in glycerin and aqua dest., are most satisfactory to relieve pain. 5. Cocain should only be resorted to in extreme cases. 6. Surgical treatment should not be recommended in advanced phthisis. 7. Tracheotomy should be performed only for the promotion of euthanasia in cases of severe stenosis of the larynx.

I am indebted to Dr. B. M. Linnell of this city for the histories of the following three cases, which were treated by him in his private practice, and were read before the North Chicago Medical Society the same night as the preceding cases reported by me.

Case 1.—Mr. B., age 25 years, street car conductor, married. Family history good. Patient had pneumonia four years ago,

was ill for one month, but afterward felt well for two years. Two years ago he spit up a mouthful of blood. Has had two hemorrhages since, the last one three months ago. He has been coughing more or less ever since the first hemorrhage. In the morning he raises some thick yellow sputa and coughs up during the day about half an ounce. About three months ago he began to get hoarse, can not speak above a whisper at the present time. His strength is fair, appetite good, but has lost ten pounds of flesh. He did not expect to have his lungs benefited by treatment, but desired his voice back again so that he might be able to "call the streets" as a conductor.

On examination of larynx, I found the arytenoids swollen and congested. The cords were dull and did not meet at phonation.

The examination of the chest revealed extensive consolidation under the scapula of the right side posteriorly; some râles.

Treatment.—Began spraying the throat with a 25 per cent. solution of guaiacol in oil of almonds; made an application three times each week. The patient was taking creosote, so I had him continue that. In two weeks the swelling went down and the patient began to use his voice, but was still very hoarse. About December 1 taught him to use a Davidson's No. 59 atomizer with a spray of zinc sulph. 2 grs., boric acid 8 grs., menthol $\frac{1}{4}$ gr. to the ounce of distilled water. This he used twice each day and by December 15 was able to talk as well as ever. Now he uses his spray once a day and the swelling is almost gone. The cords meet perfectly at phonation.

Case 2.—Miss W., age 19. Family history negative. In September, 1895, had an attack of pleurisy. Has been coughing ever since. Began to get hoarse three weeks after. Was under treatment until Jan. 10, 1896, when the hoarseness was about gone.

In May, 1896, patient became very hoarse. On examination of larynx, July 11, 1896, the vocal cords were found thickened and remained 1-16 of an inch apart on phonation; congested. The arytenoids and the ary-epiglottic folds were swollen and congested. The patient was put on a spray of 50 per cent. guaiacol solution in almond oil and improved some. The swelling went down rapidly.

In September, 1896, after neglecting treatment for one month, an ulcer appeared on the posterior larynx, which has reappeared several times whenever patient was neglected, but always disappeared again with the application of a 50 per cent. guaiacol spray. At present the swelling is gone and vocal cords are clear, but the cords do not yet quite meet on phonation. Consequently she is still hoarse. Unfortunately, there are pulmonary complications, which are progressing rapidly and will probably be fatal.

Case 3.—Mr. S., farmer, age 26, unmarried. Family history negative. Had pleurisy nine years ago, left side. Has been hoarse more or less for two years. No cough, general health excellent, appetite good, weight 150 pounds, remains about the same, temperature 100 F., pulse 100. Had been hoarse since last February, constantly. Could hardly speak above a whisper at the examination. The arytenoids were badly swollen and with the swelling of the false cords the true cords were hidden entirely from sight. The larynx was swollen and tender externally, especially on the left side.

Patient's larynx was sprayed three times a week with 25 per cent. guaiacol solution in oil of almonds. Constitutional treatment consisted of carbonate of guaiacol, 10 to 20 minims, three times daily, with tonics. In six weeks the external tenderness had disappeared and the swelling reduced some. Internally the swelling had gone down one-half and one vocal cord appeared, the right. The patient was then sent home and given a spray of one-quarter of 1 per cent. trichlorid of iodin, to use twice daily. In December the swelling was still more reduced and the left vocal cord came into view for about one-half its length. The patient was then given a spray of zinc sulph. solution, about 15 grs. to the ounce of water. In this case the effect of the guaiacol was very marked, reducing the swelling very rapidly. So far I have not been able to find any pulmonary lesion, though the history of the case might lead one to suspect its presence.

All of these cases I believe to have been helped greatly by the use of the spray of guaiacol varying in strength from 25 to 50 per cent. I believe a constitutional treatment always helps and besides the forms of guaiacol and creosote, give a general tonic like nux vomica or cod liver oil.

36 Washington Street.

Let us have a Department of Public Health!

THE EXAMINATION OF THE RECTUM AND THE FEMALE GENITAL ORGANS WITH REFLECTED LIGHT.

BY W. F. MITCHELL, M.D.

LANCASTER, MO.

In the examination of the rectum or the female genital organs, it is the usual custom of the physician to introduce the speculum and cast the eye in proper range to view the parts exposed. In so doing, he proposes to have all the light in his favor by placing his patient on the chair with the light from the window to enter the cavity exposed. In making the examination, he must of necesity throw his head in such position to obscure to a degree the entrance of the full volume of light and beside his position is such he can take only a partial survey of the parts at one time. It occurred to me from the use of the laryngoscope a person could with ease and much more fully obtain an entire view of the rectal or vaginal passages by using the same plan as in the examination of the throat, which can be done with more ease and satisfaction than any other way. A person can use a window in his office, raise the curtain and allow the sun's rays in and turn the operating chair or bed in position with the patient's head toward the window and take a position in front of the patient, introduce the speculum, and having the mirror properly adjusted you throw the sun's rays into the rectum or vagina, giving you a full and clear view of the parts. The light from a window even on a cloudy day will give you a pretty fair view. Then when one has the advantage of the electric light, there can be no question as to the utility of the plan in the examination. Or you can use the ordinary student's lamp with pretty good satisfaction, giving the advantage you do not occupy a strained position in getting a proper view. In making an examination of the rectum, I introduce the speculum, having adjusted the head mirror and looking through the aperture in the center of the mirror, I am able to take in view all exposed surface, viewing the condition of the mucous membrane, whether there is undue discoloration, or whether there is any lumps or piles within the rectum, etc. Then withdraw the speculum and reintroduce it to give a view of each side of the bowel, which completes the examination. In the examination of the female, place her in the attitude usually occupied by such patients, in the chair in the same position to the light as in the case of a rectal examination. Let the sun's rays reflect into the vagina. You at once can see the condition of the os uteri, the condition of the walls of the vagina, and making treatments have the free use of your hands in the manipulation of instruments, having at the same time a full light upon the parts to be treated. The only thing required in this method of examination is the familiarity in the use of the reflecting instrument, always adjusting it to the forehead so that you see through the aperture in the mirror, and unless you use it in this manner, it will not be satisfactory. It has served my purpose for an examination in this class of cases much better than any other mode I ever tried. I don't remember of ever reading in any text book or journal of this method. It may be that others would prefer to examine by the direct light, but as for myself I prefer the reflected light, for it seems to give me so much clearer view than I am ever able to obtain by any other means. I use the bivalve speculum.

CLINIC.

BY E. FLETCHER INGALS, M.D.

PROFESSOR LARYNGOLOGY AND DISEASES OF THE CHEST, RUSH MEDICAL COLLEGE, CHICAGO.

Case 1.—Hypertrophy of the tonsils with frequently recurring tonsillitis.—Gentlemen: The first case I present to you is a girl 11 years of age who has been brought to me from a neighboring State on account of frequently recurring tonsillitis with which she has been troubled for several years. Her physician tells me that almost every time she takes cold she suffers from quinsy so that at least three or four times during the year she has this painful disease. He attempted to remove the tonsils, but was unable to do so. Upon examining the fauces I find that the tonsils are slightly enlarged. Neither of them is more than three-fourths of an inch long by half an inch broad and three-eighths of an inch in thickness. Both of them are covered by the anterior pillars of the fauces so that it would be impossible to engage the gland in a tonsillitome; this explains why the doctor failed in the attempted operation. Ordinarily, with tonsils no larger than these I should not recommend an operation, but in this case the glands become inflamed so frequently that something is necessary in order to reduce their size or to remove them entirely. Several times I have under similar circumstances caught the enlarged gland with a vulsellum forceps which had previously been passed through the fenestra of the tonsillitome; the tonsillitome was then slipped over the gland and the latter was speedily removed, but in the majority of such cases profuse bleeding has followed, which has sometimes lasted for many hours; therefore, I can not recommend this operation. Usually with tonsils as small as these, when it becomes necessary to do something to prevent frequent inflammation, I am in favor of cauterizing two or three points at each sitting with the galvano-cautery and repeating these sittings once in from four to six days until the glands have been sufficiently reduced to prevent further inflammation; but in this case the child lives at a distance and it would not be convenient for the doctor to use a galvano-cautery at home; therefore, he requests me to adopt some adequate measures for relief. It will be impossible to get these tonsils with the tonsillitome without first having separated the anterior pillar of the fauces from the gland and this would require considerable time and unnecessarily give the child very severe pain if she were not under an anesthetic. We will therefore give her chloroform and I will remove the tonsils with the tonsil forceps and snare as is my custom in young children.

The child having been anesthetized, I place a gag in the mouth to keep the teeth apart, and depressing the tongue pass a blunt hook between the anterior pillar of the fauces and the tonsil; with the forefinger of my left hand and the hook I have now separated the anterior pillar from the tonsil and have nearly enucleated the gland. The tonsil is now seized with tonsil forceps and a wire loop of the ordinary polypus forceps is passed over the forceps and down over the base of the gland, which is easily removed by tightening the milled wheel. I find that I have completely removed the gland and we need have no fear of hemorrhage after this operation. Turning the child with its face to the other side of the table I now remove the tonsil from the left side in the same manner. This is accomplished without difficulty. Having removed both of the tonsils I pass the forefinger into the naso-pharynx, which I am somewhat surprised to find filled with adenoid growth. Perhaps I should not be surprised because in the majority of cases where the faucial tonsils are hypertrophied the pharyngeal tonsil is also enlarged, but this child did not present the usual symptoms of naso-pharyngeal obstruction. The case illustrates very well how likely the surgeon is to fail who contents himself with removing the faucial tonsils without examining the naso pharynx, as I would have been tempted to do in this case, had the glands been large enough to catch in the tonsillitome. I will now remove the adenoid growths with the bent forceps, of which I have spoken in a previous lecture. Having cleared out the greater portion, I find also considerable thickening back of the orifice of the Eustachian tube, which must be carefully removed in order not to injure the normal tissue. I will pass a nasal bone forceps through the nose to be sure that the posterior nares are free, and to remove some small masses that still remain at the upper part of the opening of the nasal cavities into the naso-pharynx.

The operation has been thoroughly performed without pain to the child and we may be confident that she will not again suffer from tonsillitis. We will recommend that the throat be gargled once an hour for the next three or four days with a solution of a dram and a half of carbolic acid to a pint of water. We will recommend also that a mild antiseptic spray containing one-third of a grain of thymol and three minims of the oil of cloves to the ounce of liquid albolene be used through the nares several times daily.

Case 2.—Fracture of the nose with bending and thickening of the septum.—This young man has been sent here by one of our old alumni on account of deformity of the nose which resulted from a fracture that he sustained thirteen years ago. The patient is now 18 years of age and it is altogether probable that the deformity has increased considerably within the last few years. We find the lower end of the nasal bones bent about one-fourth of an inch to the left of their normal position, but the tip of the nose is again bent back to the right nearly the same distance beyond the median line. There is no depression of the nose, so that no building up will be needed in case an operation is performed. The patient is a good deal annoyed by obstruction of the nares; indeed he is unable to get any air through the left side, though he can breathe fairly well through the right much of the time. His principal anxiety is to have the nose straightened so that it may make a better appearance. Upon examination of the nares with a good reflected light I find that the septum has been bent so far to the left that the concavity of the right side reaches beyond the normal plane of the left side of the septum, but the partition has been thickened to nearly three times its ordinary size, and at the lower anterior part the edge of the septum has been crowded off to the right, causing the deformity of the tip of the nose in that direction. In this instance it will be impossible to get free breathing space without cutting away the redundant portion of the septum and then bending it back to its normal position; but this can not be done under a general anesthetic and straightening of the nasal bone could not well be done without it. We will, therefore, have to make two operations. The first will be done upon the septum under the influence of cocain, and after this heals we will attempt to restore the nasal bones to their normal position. When the part has been well cocainized we will cut away the redundant tissue with trephine knives or scissors as described in a former lecture, saving as much of the mucous membrane as possible, and taking care to cut through the upper portion of the septum sufficiently to destroy its resiliency. With nasal forceps we will then replace the septum in its normal plane and pack the left side with antiseptic surgeon's lint, which we will leave in position for five or six days. Subsequently we will have the patient wear a gutta percha tube to hold the septum in the normal plane. This will have to be worn four or five weeks, by which time the second operation should be made.

To correct the external deformity we will place the patient under the influence of ether and refracture the nasal bones so that they may be pushed over into their natural position. It is not practicable to fracture the nasal bones with the septum forceps, therefore, when the patient is anesthetized we will fold up a bit of cloth making a pad about a quarter of an inch thick. This will be placed against the nasal bone, the end of a spool placed against it, and the spool will be given several sharp raps with a hammer. The bone will thus be loosened until it can be easily pushed over. The septum forceps will then be introduced into the nostrils and the septum and nasal bones will be crowded over at least one-eighth of an inch beyond the normal position, where they will be held by packing the left naris with antiseptic surgeon's lint. If necessary we will at the same time place an external splint upon the nose. This may be made from a piece of gutta percha such as dentists use, shaped by the aid of a pattern first made of paper. This when dipped in hot water will become very pliable and can then be crowded down over the nose upon the cheek and held until it becomes cool and firm. A pad will then be placed upon each side of the splint thus formed and the whole will then be held in position by adhesive straps. This dressing should be worn about two weeks. It is necessary to crowd the nasal bones at least one eighth of an inch beyond normal, otherwise when healing takes place they will be drawn back too far to the left.

Case 3.—Syphilitic sore throat.—This woman is 32 years of age. She complains of sore throat which she says has been troubling her for the last seven months. Her general health is good and she gives no history of similar previous disease. She has not been able to eat with comfort for the last seven weeks, therefore has eaten very little and as a result she has lost thirty pounds in weight; nevertheless her complexion is good, her skin cool and moist and the pulse only 84 per minute.

Upon examination of the fauces, I find a large ulcer fully the area of a silver dollar involving principally the left tonsil, the

pillar of the fauces, the left side of the palate and the left side of the pharynx, though it extends also over a small distance to the right side. This is a deep ulcer with sharp-cut indurated edges and an areola of congested mucous membrane extending for nearly half an inch outward from its borders. There are several chronic diseases of the throat that may give rise to soreness, such as rheumatic sore throat and neuralgia of the pharynx, but there are only three that are likely to cause ulceration, viz., cancer, tuberculosis and syphilis. The principal points in the diagnosis of this case are the general good health, the nearly natural condition of the pulse and temperature, and the deep ulcer with indurated borders surrounded by a zone of congested tissue. In the early stage of cancer of the fauces we are likely to have a good deal of irregular induration and finally when ulceration takes place the granulations are of a fungus character and roll out over the borders; or if the base of the ulcer is free from granulation, the borders are apt to be thicker and more irregular than in this case and they are not surrounded by the distinct areola of congestion which is presented here. In cancer of the throat there is usually a great deal of sharp lancinating pain which occurs even before the advent of ulceration. Although the signs and symptoms are not typical we may safely exclude malignant disease in the case before us.

In tuberculosis of the throat we commonly have widespread but superficial irregular ulceration involving little more if any than the mucous membrane and attended by pain more severe than in this case, though in rare instances we do get the deep ulcer. In practically all such cases there is excessive pallor of the mucous membrane of the palate, the patient presents a cachectic appearance and there is a pulse of from 110 to 120 or 130 with a temperature two or three degrees above normal. In nearly all, we will be able also to detect the signs of pulmonary tuberculosis.

With this patient we have no history of cough or expectoration and there is nothing else in the personal history to suggest tuberculosis. On the contrary from the history we have every reason to believe that she has been exposed to the contagium of syphilis. The exclusion of other diseases, the history, and the peculiar appearance of the ulceration, leave no doubt as to the specific nature of this disease.

We will apply to the ulcer a strong tincture of iodin and each treatment will consist of carefully touching the spot five or six times with a small swab saturated in the iodin, the parts being allowed to dry before the mouth is closed. In this way we will color the whole surface of the ulcer of a deep brown and it will appear glazed and dry when the treatment is finished. This treatment should be repeated daily for about ten days, and once in two days for five or six days longer and once in three days for two weeks longer, by which time the ulcer will probably be healed. We are not likely to see any evidence of healing for four or five days, but after that the new tissue will be seen extending out from the borders and soon after the ulcer will rapidly close. If at any time when the patient returns the ulcer seems larger instead of smaller we will conclude that the last application was too severe, we will then make a lighter one, or if, as sometimes happens, the case should not progress favorably we will substitute the iodin by a 20 grain solution of sulphate of copper, which latter may be applied with the atomizer. At the same time the patient will be given the iodid of potassium in doses of from 5 to 30 grains after each meal. We will begin with 5 grains and have the dose made 5 grains larger each day until 30 grains are reached. Care will be taken that the medicine is always freely diluted. I usually tell the patient to put the medicine in enough water to make one swallow, to take several swallows of water before the medicine and to drink at least a glass full afterward. In this way irritation of the stomach can be avoided. If I find that the ulcer is healing properly I will not carry the dosage to the highest limit here recommended, but may be contented with 15 or 20 grains at a dose. The treatment will in all probability relieve the pain within forty-eight or at most sixty hours, and if then the patient has not a good appetite we will give the tincture of nux vomica, 7½ minims at a dose, and if the iodin eruption should appear we will add to the medicine about 4 minims of Fowler's solution at each dose. Under such treatment as this, an ulcer as large as a quarter will nearly always heal within from two to three weeks and I have no doubt that even this large ulcer will be cured within four or five weeks. I have not recommended mercurials in this instance because in the tertiary stage the iodids appear to me preferable. I do not now recollect any similar case in which this method of treatment has not been followed by speedy recovery.

Case 4.—Chronic tuberculosis.—This boy is 17 years of age and tells us that he has been sick for the last four years, during which time seven abscesses have developed on the chest and left arm and have finally been opened or discharged spontaneously. The patient complains today of soreness at the inner end of the second costal cartilage of the right side, where he thinks another abscess is forming, though he says that the area of soreness is not so large now as it was a few days since. He tells us that he is somewhat short of breath and that he expectorates about 4 ounces of yellowish sputum daily. He is 17 years old but is smaller than boys of this age generally. He weigh 101 pounds, which I think a fair weight for his height. It is probable therefore that he is not much emaciated. He gives no distinct symptoms of pulmonary disease in his past history, but says there has been some trouble with the right lung. Notwithstanding the expectoration he makes no special complaint of cough, his tongue is clean, the appetite and digestion fair and on the whole his general condition is very good, but I find the skin hot and dry and the pulse 127 per minute. Upon inspection I find three large scars each nearly three inches in length at the lower part of the right side. I find two smaller scars just above the left nipple near the left edge of the sternum and a scar four inches long at the upper part of the left humerus. There is also a scar in the region of the appendix which appears as though he had been operated on for appendicitis. He tells us that the trouble first appeared in the lower part of the right side as a distint tumor, which was finally opened and which gave vent to a large amount of pus. I find decided dulness on percussion over the lower third of the right lung, in front, latterly and behind, but the upper part of the lung yields normal resonance as compared with the left side. Over the upper two-thirds of this lung the respiratory sounds are about half as intense as upon the left side, and over the lower third of the lung the sounds are very feeble and I suspect those that are heard are transmitted from the air cells above or from the left lung. The heart is in its normal position, its pulsations are rapid, regular and of good force and there are no abnormal sounds. As the boy is unable to give us an intelligent history we can not make a positive diagnosis, but from the history of an abscess developing early at the lower part of the right side and from the consolidation and retraction of the lower portion of that lung that still remains we have reason to believe that he suffered first from a circumscribed empyema confined to the lower part of the pleura, and it is probable that the cavity opened through the lungs and a bronchus and never completely healed, so that the secretions he now expectorates (to the amount of four ounces daily) come in the main from the pleural cavity. The respiratory sounds over the left lung are normal excepting a few indistinct subcrepitant râles.

There can be little doubt that this case is tubercular although the diagnosis has not been confirmed by microscopic examination. Even if it were not tubercular in the beginning, tuberculosis would probably have ensued by this time in the lower portion of the right lung, and the subcrepitant râles in the apex of the left lung indicate that the disease has now made its appearance in that organ. The treatment must be tonic and supporting. I will recommend for him 3 grain doses of the citrate of iron and quinin three times daily to be taken before meals, and from 10 to 20 grain doses of chlorid of calcium to be taken after meals in from 1 to 4 drams of maltine with the hypophosphites. We will begin with the smaller doses and gradually increase the amount. Cod liver oil might be given in this case in place of the maltine, provided it agreed with his digestive organs. It is impossible at this time to discover any physical signs of a cavity in the lower part of the right pleura, therefore, no operative measures can be recommended, though possibly subsequent examinations may show us that the suspicion I have already expressed, that the sputum now being raised comes from a circumscribed cavity in the pleura is correct. If that should be proven then an opening should be made and free drainage established. We can not safely make a prognosis in this case until the sputum has been examined. If it should show the presence of numerous tubercle bacilli, as we suspect that it will, then the duration of the case would hardly exceed eighteen months. If on the other hand it should be proven that there were no tubercle bacilli present, we would not be surprised if the boy should make a fair recovery in the course of from twelve to twenty-four months and live thereafter for many years.

Case 5.—Hypertrophy and dilatation of the heart with fibroid phthisis.—The consulting staff have to present a patient 21 years of age, of whom they make the following report: The patient complains of pain in the region of the heart which has troubled him for the last two years; there is also a good deal of palpitation and considerable dyspnea, with cough and profuse expectoration. Notwithstanding these he says he is able to do a little work, but he has not been employed for the last nine months. They find no hereditary predisposition to tuberculosis, or indeed to other diseases that might account for his

present condition. The appetite and digestion are good and the weight normal. The pulse is 110 and his temperature 100. Upon examination of the chest the area over which the heart's impulse can be seen is found to be enlarged, being at least four inches in diameter; but the strongest impulse, indicating the position of the apex of the heart, is nearly in its normal position, though the extreme line of cardiac dulness as marked out by the consulting staff extends one and a half inches to the left and about as far below the normal position. Upon palpation I find the greatest force of the impulse half an inch to the left of the maxillary line. Upon auscultation I heard a distinct systolic murmur in the second intercostal space of the right side close to the sternum, and an impurity of the first sound of the heart is heard over a greater portion of the aortic area. This is due to some obstruction in the aorta or at the aortic valves, which condition is probably the main factor in the enlargement of the heart. Further examination shows that the left side of the chest is three-fourths of an inch smaller than the right, but the expansion is the same upon both sides. Dulness is found over the upper part of the left lung, extending down to about the fourth rib in front and to the fifth rib behind. In this region the expiratory murmur can scarcely be heard, but there are no râles. The vocal fremitus appears to be a little exaggerated over the whole of the left side. Over the lower third of the left lung there is also some dulness with a very feeble respiratory murmur, but over the middle portion of this lung the respiratory sounds are much more distinct. The sounds at the lower part of the left lung are about one-third as intense as upon the right side. Over the upper portion of the right lung the respiratory murmur is diminished in intensity, but the quality is normal. Over other parts of this lung the sounds are natural or slightly intensified. It has been suggested that the cardiac symptoms and signs in this case are due to simple hypertrophy, but with an uncomplicated hypertrophy we ought not to find a pulse of 116 and the patient ought not to be annoyed by palpitation; beside, the impulse would be considerably stronger than we find it in this case. The heart is evidently both hypertrophied and dilated and, as already stated, this condition is doubtless largely due to the obstruction in the aorta, but it is probable that the obstructed pulmonary circulation is partly responsible.

While there is no doubt about the condition of this man's heart and about the consolidation of his lung, there is still much reason for speculation as to the cause of his trouble. The patient tells us that the disease came on at first with a sharp pain in the side, and says that this pain lasted for a few days and then became less and less severe, but that it has continued to some extent ever since. It would appear probable that he suffered first from an acute pleurisy, but that it became chronic and that the effusion was not absorbed for several weeks or possibly months. During this time the inflammation of the pleura gradually extended to the lung itself, the intervesicular tissues being involved, and finally the new connective tissue contracted and obliterated most of the air cells in the apex and a considerable number of those in the base of the left lung. This is not an uncommon condition after pleurisy. The temperature in this case may be due either to the condition of the lung, or to endocarditis or myocarditis. The continuous pain from which the patient suffers in the region of the heart would suggest that inflammation may be still going on in that organ. The cough and expectoration, however, would suggest that the rapid pulse and increased temperature are the result of changes in the lung.

The sputum has not been examined, therefore we can not tell whether tuberculosis has set in, though as I have already told you, it is almost sure to occur sooner or later when chronic inflammation of the lung follows pleurisy. In the absence of a positive diagnosis we will prescribe for this patient 5 minims of the tincture of digitalis to strengthen the heart action, 30 minims of the tincture of hyoscyamus to lessen the cough, and 5 grains of the iodid of ammonium not only to lessen the cough but to diminish the cardiac pain. These will be given in syrup of glycyrrhiza three or four times a day. If a microscopic examination should reveal to us the presence of tubercle bacilli, the proper treatment for tuberculosis would be given in addition to that for the heart. It is so unusual for pulmonary tuberculosis to occur in connection with chronic cardiac disease that it is sometimes assumed that the two are antagonistic. If this man were 45 years of age, we might well inquire whether the pain and rough sounds over the aorta were not due to slight dilatation or to an aneurysm of that vessel, but as he is only 21, I think it more reasonable to attribute them to changes in the heart itself. The prognosis as to recovery is necessarily unfavorable, but unless some accident occurs, we believe that this patient may hope to live at least three or four years.

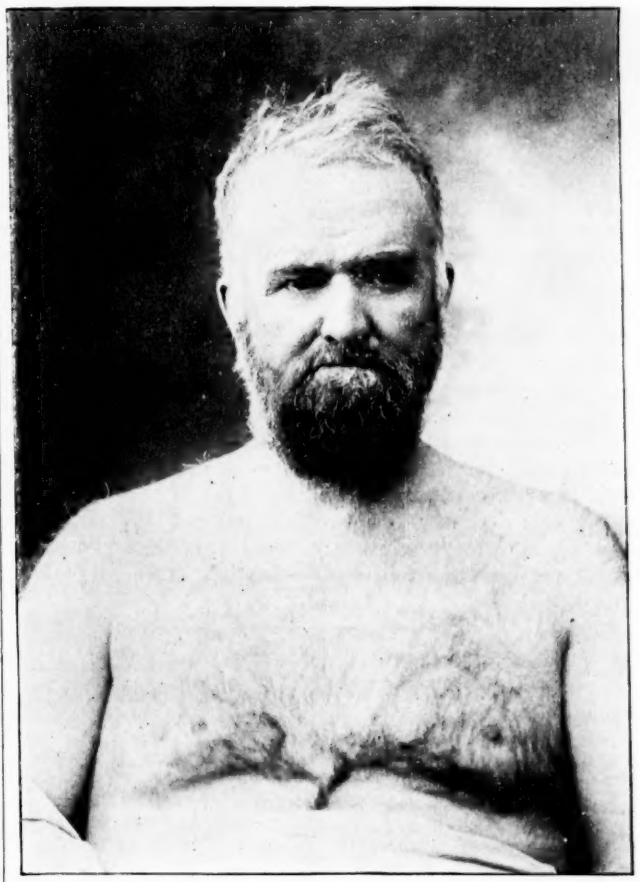
REPORT OF A CASE OF GUNSHOT WOUND OF THE CHEST.

BY J. F. JENKINS, M.D.

TECUMSEH, MICH.

In the evening between the hours of 8 and 9 o'clock of April 26, 1896, a messenger came to my office from Dr. O. N. Rice of Tipton, some six miles distant, requesting me to come to his assistance; that there were two persons in that hamlet who had recently received gunshot wounds.

Eugene C., age 50 years, weight about 200 pounds, was shot in the chest while his assailant stood some fifteen feet from him; after shooting C., the young man fired a bullet through his own head, dying within an hour afterward.



The revolver was a 32-caliber, and the bullet struck C., as the reader will observe from the photograph about two inches to the left of the right nipple passing through the lung, and although the missile has not been extracted, the present indications are that it is buried in the tissues on the anterior surface of the right scapula near its inferior angle. An hour after receiving the wound, the patient was breathing rapidly and was suffering from shock. A careful search was then made for the bullet by pinching up the skin and tissues beneath, but with negative results. The wound of entrance was neither probed nor examined by the finger, and notwithstanding considerable hemorrhage occurred from the wounding of the intercostal artery, yet the bleeding subsided spontaneously. The cutaneous surface about the wound was shaved and thoroughly cleansed, the wound dressed antiseptically, and the

patient placed in a semi-recumbent position; hypodermics of morphin were given occasionally, sufficient to relieve pain. A moderate hemoptysis took place which continued more or less until the fourth day. On the following day upon an examination of the chest, there was found a circumscribed pleuritis and traumatic inflammation of the lung extending downward from the second intercostal space on the right side.

Twenty-four hours after receiving the wound, the temperature of the patient was 100 degrees, respiration 40 per minute, and pulse 102. Absolute quiet and an expectant course of treatment was adopted; antiseptic dressing was applied to the wound, which healed without suppuration. On the eighth day the temperature was 99.4, pulse 84, and respiration 24 per minute.

In the following night the patient complained of severe pain along the posterior portion of the right leg below the knee, and when examined was found swollen, the skin was pale and cool; there was tenderness along the course of the external saphenous vein, which felt like a whip cord. The phlebitis of the external saphenous was doubtless caused by a septic embolism. During the succeeding ten days the temperature varied from 99 to 102 degrees, respiration from 20 to 26, pulse from 84 to 110 per minute. The limb was elevated, and warm applications were made to the extremity; frequently the limb was immersed in hot water from ten to fifteen minutes at at time. A supporting course of treatment was followed, and sufficient anodynes to control pain.

Four weeks after the shooting, the respiratory murmur could be distinctly heard over the greater part of the lung, excepting along the course of the bullet, the phlebitis had subsided, and the patient discharged by Dr. O. N. Rice, who skillfully conducted the case, and who has kindly given me his history after my second visit.

A CASE OF FLAT RACHITIC PELVIS; PROLAPSE OF THE CORD WITH THE HEAD; VERSION AND EXTRACTION.

Read at the Meeting of the Obstetric Staff of the Chicago Health Department, Nov. 21, 1896.

BY JOS. B. DE LEE, M.D.

Lecturer on Obstetrics, Northwestern University Medical School, Obstetrician to Mercy Hospital, to the Chicago Lying-in Hospital, etc.

CHICAGO.

Mrs. H., iv-para; two forceps deliveries; one craniotomy; one spontaneous delivery, child living.

Present labor at term, began Nov. 9, 1896, at 9 P.M. Dr. A. E. Coy was called before midnight and found the cervix admiting two fingers, cephalic presentation and a large loop of pulsating cord in the vagina. Pains were strong and soon dilated the cervix.

At 2 A.M. Dr. Coy kindly invited me to see the case.

Patient is a large, strong, apparently well-built Irish woman.

Spines, 28½; crests, 31; trochanters, 34½; Baudelocque, 19; conj. diag., 11; conj. vera, estimated at 9 to 9¼ cm.

Position, O. L. A.; heart tones, 140 per minute, strong and regular; head freely movable above the inlet.

Internally—perineum torn deeply at some previous labor, cervix thick, os admits the hand easily, old scars in the vagina, head movable above the inlet, sagittal suture transverse, small fontanelle at left, large to right and lower than the other. Pelvis roomy below and at the sides, contracted in the conjugate diameter.

There were two methods of treatment open to us, first, reposition of the cord and bringing it over one leg; second, version and following this, extraction.

Usually it lies with the choice of the operator or his individual skill, which one of these procedures he adopts, but in this case the presence of a contracted pelvis, as evidenced the pelvic measurements and the history of the case, decided in favor of the version.

The patient was put on the table, anesthetized and the parts sterilized. The anterior foot was now brought down, but the version could not be completed as the head could not be dislodged from the inlet. A maneuver known as that of Justine Sigmundine was now tried. A stout sling was put on the foot and while pulling on this with one hand the head was pushed up from below with the other. Version completed, after which the heart tones were rapid but otherwise good. We waited fifteen minutes and undertook the extraction, for which the patient was allowed to awaken from the chloroform. It required considerable traction aided by pressure from above to deliver the trunk, and the arms were thrown up alongside the head so that great difficulty was met in delivering them.

The head was arrested at the inlet, Smellie-Veit maneuver and strong pressure from above brought it down to the vulva, where it was found that the cervix had contracted tightly around the head. Chloroform was again given and the cervix slowly worked upward by the fingers. By separating the walls of the vagina and vulva and wiping the passage clear, air was allowed to the child's mouth.

After delivery the trachea was cleared with the tracheal catheter and the slightly asphyxiated child revived by the usual methods. It was a female, weight 7½ pounds, length 50 cm. The puerperium was entirely normal.

Among the many interesting points this case presents, a few may be touched on. The maneuver invented by Justine Sigmundine, "Royal Midwife to the Brandenburg Court," is of signal use in cases of difficult version. Where the head is held tightly against the inlet or in the lower uterine segment, enough traction may be put on the leg as to break it without dislodging the head, even when the traction is aided by upward pressure against the head from the outside. One may also bring down the other leg and try the turning on the two. The little maneuver just mentioned is simpler and the following extraction is rendered easier if the other limb be allowed to remain in place with the breech and thus dilate the cervix more (that is, if the extraction be made on one leg). In the hardest cases it may be necessary to put slings on the two legs and push up the head with the hand in order to complete the version.

Where, in the interest of the child, an extraction by the breech is undertaken before the cervix is completely dilated, it may happen that the cervix, irritated by the passage of the child through it or by many and hasty manipulations with the hands, closes down on the head of the child, button-holing or imprisoning it in the uterus. Under these circumstances the child is lost, if it is not given air, in a very few minutes. At the risk of tearing the cervix and of grave post-partum hemorrhage one may forcibly pull the head out. In these cases, traction brings the head to the vulvar outlet and the cervix may be seen. Under chloroform the fingers may slowly work the constricting edge over the face, and the mouth now being free, it is cleansed and air allowed to it by separating the labia and vagina with the fingers. In this way the child may breathe while the cervix is given time to relax and slip back off the head. Carl

Schroeder in this way saved a child whose head was arrested for twenty minutes.

In primiparæ where one is desirous of saving the perineum by slow delivery of the after-coming head, it is possible, where the mouth is in the vulvar outlet, to give the body to an assistant to hold and allow the child to breathe in this position. A longer time may now be taken for the delivery of the occiput.

PECULIARITIES OF THE SURGICAL DISEASES AND INJURIES OF THE NECK.

BY EDMOND SOUCHON, M.D.

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(*Continued from page 269.*)

Special tumors of the neck.—The neck sometimes presents hernial tumors, already described. Also salivary calculi developed especially in the submaxillary gland.

Diagnosis and treatment of the tumors of the neck.—Percussion discloses the nature of gaseous tumors; besides, pressure reduces them, violent respiratory efforts reproduce them; pneumatocele follows the respiratory movements. Exploring the swelling with needle and syringe will reveal the fluid or the solid nature of a tumor. The following are the liquid tumors which should not be extirpated: Liquid hematoma, and chronic abscess. Liquid hematoma follows blows or contusions, or punctured wounds or incised wounds, when the lips have lost their parallelism; they may be due to a cured aneurysm; they should be left alone unless they cause pressure symptoms or unless they are too long in dispersing; then they should be aspirated; they should be incised early, if they reproduce; they need disinfecting and a drainage tube with or without a supplemental opening at the most dependent point. Chronic abscesses may be treated first with injection of iodoform (ethereal or mucilage), or by incision, disinfection, and proper drainage; when they resist this treatment, the mucous membrane of the interior should be curetted; when possible the membrane should be extirpated. Recent aneurysms should not be extirpated before trying milder means.

The following are the solid tumors which should not be extirpated: Comedones, clotted hematoma, recent strumous adenoma, Hodgkin's adenoma without pressure symptoms, recent tuberculous adenoma, recent syphilitic adenoma, recent gumma, solidified hematoma in dangerous regions, salivary tumor and calculus, hernial tumor, pulsating encephaloid.

Comedones characterized by small elevation of the skin with a black depressed center should be treated by squeezing or expression. Clotted hematoma is recognized by the same history as liquid hematoma, by the fact that very little liquid pours through the syringe and the tumor does not diminish in bulk; it should be incised away from the line of the important structures (vessels and nerves), properly injected, packed or drained. Recent strumous adenoma is recognized by its presence in strumous children without any symptoms of tuberculosis anywhere. It should be treated here as everywhere else. Hodgkin's adenoma is usually multiple; there exists also enlarged glands in the axillæ and groin; the spleen is enlarged, also sometimes the liver; the white blood corpuscles are not increased. It should be treated internally by arsenic, ergot, iodid potassium in high doses. Recent tuberculous adenoma is suspected from the general condition of the patient or from the presence of the bacillus in a central gland removed for that purpose; tuberculin might assist; it is treated on the same principles as incipient tuberculosis of the lungs. Recent syphilitic adenoma is revealed by the presence of syphilitic lesions in the neighborhood, which may account for the enlargement, or at a distance, or by a syphilitic history; the specific treatment is the best diagnostic means. Recent gumma presents the same remarks. Solidified hematoma, resulting from the same cause as the liquid or clotted hematoma, when in a dangerous region, should be incised away from the line of the larger vessels and nerves and the fibrinous clots removed; then properly packed and drained. Salivary calculi are diagnosed by the needle of the syringe returning a sound as though striking a metallic body; they should be removed by incision, preferably from inside the mouth when possible. Hernial tumors have already been described. Pulsating encephaloid is characterized by pulsation with expansion and attachment to the bones; when the needle is not thrust too deeply into the cavity it may become filled with serum.

The following are the liquid tumors that should be extirpated: Angioma, varix, lymphangioma, persistent aneurysm, serous cysts, hydatid cysts, bursal cysts (hygroma), tendinous cysts, persistent circumscribed abscesses or tuberculous abscesses. The following are the solid tumors that should be extirpated: Warts, papilloma, xanthoma, mycosis fungoides, sebaceous cysts, dermoid cysts, solidified hematoma in non-dangerous regions, lymphadenoma (simple hypertrophy), Hodgkin's adenoma when causing pressure symptoms, persistent strumous adenoma, persistent tuberculous adenoma, persistent syphilitic adenoma, persistent gumma, lipoma, fibroma, myxoma, myoma, neuroma, chondroma, osteoma, encephaloid, melanotic, colloid, epithelioma, carcinoma, and scirrhus sarcoma.

In the case of the tumors which must be extirpated to be cured, the nature of the tumor can not be determined positively and safely until after their extirpation, when by a microscopic examination the prognosis is established.

The point of prime importance is to decide if these tumors can be removed and with what difficulties, risks and dangers.

Superficial or super-aponeurotic tumors are diagnosed by the possibility of isolating the tumor from the deep parts, by grasping it with both hands and trying to make the fingers join beneath it; when the tumor is too large to be grasped by the hand or the two hands, the radial border of one hand is placed under one side of the base and the other along the other side, the hands are moved toward one another and thus appreciate the thickness of tissue between the two. When very thick it is likely that the tumor has also grown toward the deep parts and must be studied as a deep tumor. There is absence of pressure symptoms in superficial tumors. Deep or sub-aponeurotic tumors are more interesting because of the greater danger of their complete removal. They are recognized by the fact of their incorporation with the deep structures; when large they become superficial and may come close to the skin or become attached to it. The condition of the skin is important to deter-

mine; when distended by large tumor a portion of it must be dissected along with the tumor to prevent redundancy of the flaps; when the skin is adherent, it should also be removed. The margins must be next delineated; when circumscribed or limited, it is a favorable sign, because the tumor will be easier to remove along a well determined line of dissection with safety and in its entirety, that far at least; when the margin is diffused, it is a most unfavorable feature, because of the uncertainty of the line of dissection and the absence of all assurance of removing all the diseased parts. By freezing sections of tumors on the spot and examining them there also under the microscope, is the only positive assurance. The non-adhesion or the adhesion of the tumor to the bones is important to determine; when the tumor is movable, it must be determined whether it is clear of the important structures, *i. e.*, of the vessels, nerves and special organs. When it is clear of the important structures, the extirpation will be easier and safer. When it is over or near these structures it is often impossible to determine the degree and nature of the adhesions until the operation has reached that stage. When the adhesions are loose and are easily torn all is well. When the adhesions are resistant then there is constant danger of cutting or tearing away some of the structures with all the possible risks and dangers. When those adhesions are also extensive the case may be hopeless. Double ligatures and double hemostatic forceps must be freely used, never cutting except between the two. It is prudent also in those cases to endeavor to locate the large vessels and to pass a provisional ligature under them before dissecting too close to the dangerous points. This provisional ligature is removed after all the bleeding has been controlled or it may be decided to convert it into a permanent one. When the tumor is adherent to the bone, if it is clear of important structures, again all is well, as it may be gouged out with little risk. When it is over or near important structures the risk is greater. When the attachment is extensive the risk is also much greater and complete extirpation may be beyond all our means.

It is always of the utmost importance to explore the regions of the lymphatic glands which receive the vessels from the affected regions. When the glands are only inflamed sympathetically they should be left alone. When the glands are enlarged in malignant diseases they should be removed; to leave them behind is a grave surgical mistake, since the disease will be reproduced and another operation will have to be performed, whereas it should have been done with the first.

Surgical operations of the neck in general.—The surgical operations for the relief of the affections of the neck in general has been described with the various diseases calling for them. However, the following remarks may be added. In operations on tumors in dangerous regions, split the capsule and enucleate contents first, if possible; then remove capsule, but this should only be done as a last resort. In some cases the pressure symptoms of tumors should be anticipated by tracheotomy, because they may be so sudden, that there is no time to perform the tracheotomy; there is less risk and less danger to life than to wait and risk a sudden death.

(*To be continued.*)

Let us have a Department of Public Health!

SURGERY ONE HUNDRED YEARS AGO.

AN HISTORICAL STUDY

BY DR. GEORGE FISCHER.

DEDICATED TO THE GERMAN SURGICAL ASSOCIATION.

TRANSLATED FOR THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION BY CARL H. VON KLEIN, A.M., M.D.

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TRANSLATOR'S PREFACE.

It affords me great pride and pleasure to have been intrusted with the translation of one of the greatest historical works of the last quarter of this century. I only regret that the English language is inadequate to reproduce on the reader the same sentiment as the author has manifested in his own language; yet the English reader can but appreciate the wonderful and elaborate researches regarding the development of the history of surgery as promulgated for a period of one hundred years. The reader will be compelled to acknowledge in the work of Dr. Fischer the "genesis" of surgery. It is, I believe, just as essential for the surgeon to know the origin of his profession as it is for the theologian to know the origin of his creed. It is this that prompted the editor of the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION to cause its translation and publication for the pleasure and instruction of the readers of the JOURNAL.

THE TRANSLATOR.

INTRODUCTION.

"That the historical information of matter diminishes with each generation of students is one of the worst phases of our present period of development in medicine. As a rule, it may be assumed that even the self-active younger worker's knowledge at the best covers from three to five years. Publications of five years past do not exist for them."—*Virchow, 1870.*

The farther the milestones of the natural medical philosophy are moved asunder the more justifiable is the question: Is it possible for the practicing physician to keep pace with the progress of science? After the young doctor has left the university and entered upon the starving years of his practice with the firm purpose of continuing his studies, he will soon unconsciously find himself at a turning point, when an irrevocable resolution must be made. Character, not talent, decides the course to pursue; the choice is a very serious one, usually for life. Either he bids farewell to science and steers directly into the laboratory of the medical workman, sometimes by means of the narrow and crooked path, plucking the forbidden fruit by the wayside, or he works on in order to obtain and merit the name of a learned practitioner.

However, a short rest after the strain of the closing examinations would be very beneficial, inasmuch as the university instructions would suffice for a few years. The great danger, however, lies in being idle too long; one year being extended to two, and if five years should pass, the young physician is incapable of making a scientific examination independently. After five subsequent years of indolence he will be shocked to note that even the professional works, which depend more upon the judgment of colleagues than upon the approbation met with by the practitioner, have become unintelligible to him. These impressions are not only caused by the writings of the specialists, but medicine and surgery have become strangers to the young doctor. Full of anxiety he seeks help from his older co-workers. The routinist has no scruples, he contents himself with his experiences. That is, the number of visits he makes and his practical tact, with which he creates great mischief. For of what little benefit to science are the experiences of so many variously occupied practitioners and hospital physicians who lack the talent to put the same to account! No more than light aids a blind man. On the other hand, the honest colleague often looks vexed; he complains of the imperfections of knowledge and frowns at the increase of literature in the journals, which he can not master. But if there is no apparent cause for his sorrows the displeasure is more frequently the result of his inability to advance, as, of all things, the preliminary sciences are not controlled.

If the practical physician desires to preserve his enthusiasm for science the best diploma that a university can bestow and an untiring strife toward perfection until old age, and not to remain a blunderer in all the branches of the vast number of

various professions, then he must not study medicine in detail today, tomorrow surgery, and obstetrics the next day, for he will fail. He will only feel satisfied when he has mastered one branch, which he can accomplish alone, as the study of a single science is continuous. This is not, however, to further the nuisance of the body of specialists, who give their sole attention to one science, ignoring all the others. Although most practitioners, particularly the country physicians, are no specialists in the modern sense of the word, each one of them has chosen some favorite study since his departure from the university. In this he may carry on his researches in detail, while in all the other branches he accepts the complete whole, paying no attention to the laborious examinations necessary, to the stories of the sick, the temperature charts and official reports of the sections heaped up in the ponderous journal of medical science, nor to the minute discussions of professors. Only under such circumstances should a practical physician become a specialist, but never to seclude himself with his hobby. The temptation to do so is very great. Yet the several professions must not be torn asunder if the mutual understanding is to continue; what the one imparts the other must receive, the connection must ever be an animated one.

At the present time there is a decided tendency toward the study of specialties, which is not only manifested by the new branches of the medical profession arising every year, by the establishment of special journals for each new division and by the steady increase of sectional meetings of the naturalists, but also by the deeper penetration into each branch. The one seeks his knowledge principally by the pathologic-anatomic course, another by consulting the statistics, others by experimenting with animals, and various other methods by which they try to improve. The many different ways in which each profession may be begun has immensely increased the amount of work done. But it must ever be remembered that the progress made does not depend upon the number of writers nor upon the haste with which the work is despatched. But on account of the division of labor and the special studies of so many men, a vast amount of material has been added to each profession, which is being collected by more than a hundred medical journals in Europe alone. The best men of former times always bowed their heads before the princely extent of the several sciences. A hundred years ago A. G. Richter declared that it was barely possible for one man to master surgery in all its details, knowing each branch equally well. In our time A. von Graefe felt very uneasy that he was no longer capable of fully controlling the territory of ophthalmology, although then in the prime of his industrial days, and B. von Langenbeck stated that there were only a few surgeons who could boast of the ability of surveying the entire dominion of surgery. These confessions force upon us the question whether it is right to demand a certain amount of time for the study of the history of surgery. In nearly all the periods historic studies played a secondary part, seldom remaining on top for a long time; at the utmost they were tolerated, offering no interest in their behalf.

About the middle of the last century a few German professors arose, who, on account of their superstitious and servile reverence for antiquity, desired to bring about a revolution in the study of history by revising the medicine of the ancients. The smallest details of the writings of Hippocrates were commented upon and blindly admired, a deep hidden thought being sifted out of the most insignificant parts; the truths of nature were perverted so as to make them conform to his and Galen's opinion. Thus was produced a great quantity of ancient literature, which hampered the progress of science. The manner of introducing the Hippocratic spirit of the simple observations of nature into the study of medicine was not understood; therefore the real advantage was lost.

An epoch of comparatively valuable historical works extended from 1830 to 1840. The mania for systems in the past century had so confused and distracted the minds of men that all interest in the achievements of foreign countries was lost, and only a few enlightened ones desired a thorough reformation. In 1840, Stieglitz, then 73 years old, wrote: The German profession has so deteriorated and relaxed, that every effort to arouse it, even if fraught with errors and absurdities, would be wholesome. During this crisis many took to studying the history of medicine, it being thought absolutely essential that the young people should undergo an examination in it and especial teachers appointed. On its foundation was to be erected a temple of science of a thousand years' standing, while before its study scientific regeneration would have ended! But the project failed. The mere recollection of such names as Johannes Müller, Rokitansky and Virchow, of the medical science journals that were first issued in 1840 for rational medicine and for pathologic anatomy, proved that the researches in detail undertaken in the various branches of medicine had caused a revolution, and not history, which consequently failed, having received unmerited importance as a special line of study!

Now very little interest is taken in the history of surgery. Works appertaining thereto are so rare that in the archives of clinical surgery, only two columns were published within fifteen years. Notices of lectures on surgical history are seen only in isolated parts of the German universities (Berne, Breslau, Göttingen, Gratz); but it is a question whether they are always held, unless instituted by some of the more modern, prominent and practical surgeons. Baum, who knows everything, warmly advocates them and probably incited Professor Billroth's interest in them, as shown by the latter from the beginning and even now. After his treatise on gunshot wounds, Billroth wrote a brief abstract on historical surgery for the introduction of his work on general surgery, and with Pitha published a similar one in their manual. At the Vienna Exposition he exhibited a set of surgical instruments in connection with his work on the Extraction of Arrows and Bullets, which were in use years ago and are still used. Recently he published a large volume on historical culture, the methods of teaching and learning the medical sciences. From this we quote the following: "Regarding the lectures on historical medicine, it is very deplorable that they are continually growing less at the German universities, due alike to the scarcity of tutors and pupils. . . . I consider it an honor on the part of the higher medical faculties that they provide for lectures on the historical study of the medical sciences as shown in their catalogue, but I deem it not essential to insist on the students' attendance at these readings, the substance of which would not be heeded by a student having no desire for the historical studies. Where there exists a wish for genesial investigation, a historical interest will also be manifested; inseparable thoughts, as it seems to me. All lectures ought to be permeated by historical genius, then not only the interest for a general contemplation of history would be awakened, but also special researches would be pushed on. I do not doubt that these lectures can be made very charming by associating more spirit and humor with the general history of nations. Such a discourse I would enjoy even today."

Mitteldorf, in company with his honorable colleague, Haeser, the great historical researcher, introduced one of the oldest German surgeons, Heinrich von Pfolsprundt, who was famous for the unusual amount of historical knowledge that he possessed. Zeis wrote a treatise on Plastic Surgery and not long since Gürlt published an extensive work on the International Care of the Sick. The works of the ingenious Malgaigne are well known. Verneuil, one of the best modern practitioners of Paris, published a few of the unprinted documents of the old Académie de Chirurgie and arranged a course of lectures for the students, in order to awaken an interest in them for similar discoveries of history. Among those who assisted Verneuil, were the surgeons Beclard, Lefort, Follin, Broca and Trélat and seven other professors. Not long ago J. Rochard wrote a book on French Surgery of the Nineteenth Century. [Still more recently the works of Guy de Chauliac (A.D. 1300) and Henri de Mondeville (A.D. 1320) have been brought out by Nicaise. The latter was published from the MS. in the Bibliothèque Nationale.—ED.]

Von Hasner contends that for years only a few of the younger ophthalmologists get beyond the boundaries of the archives of ophthalmology and in 1869 an animated discussion ensued about the oldest writings on the operation of cataract and was carried on by Haeser and Hirsch and the practitioners A. von Graefe and von Hasner. These titles, although incomplete, belong to practical men, whose works are of greater importance to us than the book-learned, be they ever so excellent (Littré's colossal work on Hippocrates, René Brian on Paulus Aegineta, Daremberg on Oribasius). I am of opinion that every German professor of surgery will approve of the value of the study of history, even if he allows an opportunity of expressing his views to pass by.

The main objection to historical studies is that they are too learned, afford no use at the bedside of the sick and do not at all promote surgery, therefore are of no real advantage. At best they are suitable for an old gentleman who has withdrawn into his quiet little sanctum from the tumultuous noise of the crowds and there propounds a work from all the old timers; but this will not do for the young surgeon, he must keep pace with the times, and where the chances of immortality are greater for him than wrecking his reputation as a practical physician by his historical studies.

There is surely a great charm in taking part in questions up-to-date. But aside from this, that they fluctuate, are never stable and subject to fashion and by secondary circumstances

are for a time kept afloat, the one-sided preference given to a certain set of questions on one of the dominating auxiliary professions will ever leave loop holes in the other branches of surgery. It is not possible to organize an orchestra, when every musician wishes to play the first violin. Problems in surgery were greatly neglected by the cultivation of conservative surgery and the resection of the limbs was no longer a problem, until lately when doubts have arisen as to the capability of the amputated member to perform its functions properly after healing, and this operation again belongs to the most burning questions of surgery. But aside from the fact, that the difference between "learned" and "scientific" do not relate to the object, but to the cultivation of the same—for history can be treated so scientifically, on the other hand every practical question so learnedly—that the modern times consider everything with a touch of learnedness as old style. This idiosyncrasy was brought forth by the rightly repudiated book-learning, scraped together from the narrow confines of the study-room, heaping one citation on to the other, adding a piece or extract here and there until finally a literary work in mosaic results, which comprises everything; however, produces no life. It fills the mind with so much learned rubbish and instead of sharpening his faculties, stunts his reasoning powers and then produces a "learned professor" who can be outdone by the crudest practitioner. Such crippled personages rummage through the works of our greatest men, seeking a claim to priority, without having any interest in the true progress of science. At all times they have created much havoc, for the practitioner blinded by wisdom becomes confused in his studies; but when he has discovered that the gilded shell has no kernel, he sees that the learned man is of no use to his profession and condemns every kind of literary work. When the University of Göttingen was established in the year 1734, G. G. Richter was offered the chair of First Professor of Medicine. Richter, a scholar and strict follower of Boerhaave, read a collegium encyclopædicum dieteticum pathologicum on materia medica and practice. His wonderful scholarship, his linguistic accomplishments, and his very extensive knowledge of ancient literature were astonishing. He was master of the ancient and the modern languages; when only a boy, he delivered an oration in the Syrian language and composed a poem in Chaldaic. Later on he wrote lyric poems in Latin on the war at that time. Over eighty treatises were published by him; among them were the following: The advantages of a sound sleep; The disadvantages of night study; The best position while sleeping; The power of habit; Working by light at night; and The horrible aspect of a dead body. He also strove to explain theological subjects and asked theologists to return the good deeds on behalf of the medical profession. Similar tasks he demanded of his pupils, one of which was a dissertation on the naked body which did not consider Adam's nudeness offensive on account of the few innocent ones that surrounded him. His learning was greatly appreciated at that time and greatly aided in spreading the fame of the young university. But he accomplished absolutely nothing in furthering the progress of medicine.

Another form of learning is the knowledge of literature, gathered from treasured volumes, yellow with age, and forgotten through the rapid flight of time, which, after revision, becomes most useful and forms a part of modern scientific education. For this learning literature is no graveyard, as it possesses the power to kindle the hidden spark needed to bring forth the treasures of literature, which the book-learned carry about with them, a dead, useless and splendid ballast. It proves that much which is being sought has already been discovered, and often saves some one, who is about to proclaim a newly found method, from the disgrace of having presented some old fact. Literature has somewhat been neglected in connection with our surgery, consequently there are many literary errors. Virchow considers the above neglect one of the worst phases of the present period of development. Those who renounce the direct use of history at the sick-bed, forget that they also reproach anatomy, the history of development and other auxiliary sciences, whose importance has been established beyond a doubt. Many think of abstract knowledge as Falstaff thought of "honor." "Can a leg be set with honor? No. Or an arm? No. Or can it quiet the pains of a wound? No. What is this honor? Air. I do not like it." One ought not to engage in the study of history until fully convinced of the real value of the same, but you must, first of all, be willing to be convinced. However, it is often very difficult to give up preconceived opinions, from which no one is exempt to depart from one's original principles and to confess one's error. And why? Because his egotism causes him to stubbornly cling to his false methods; his mistake he dislikes to expose before others, when an unsympathetic colleague censures him. No one sees what he does not wish to see, is incapable of standing a contradiction, suppresses the observation, which kills his own principle and which upholds the opinion of his opponent. Thus the lives of hundreds may be sacrified for the want of magnanimity of one talented man. No progress is possible without the most rigid veracity. A man of character will acknowledge his mistakes, and nothing impresses a student more forcibly than his master's: "I do not know." Do not by means of mere words try to bridge over the loop-holes of science, nor assume things to be true, and do not give yourself the appearance of being omniscient, what in reality is not known at all. If the extent of a discovery is exaggerated and claimed before it has attained a certain degree of completion—it often happens that it is discredited and forgotten for a long time. By means of historical studies we learn to know the course of development of our sciences and their imperfections. They are the harbinger of great surgical discoveries, of which not one has dropped unprepared from the skies and often remind us of the saying: All these things have existed heretofore. They compel us to be modest and considerate, when we see that the great professionals were unable to enlighten us, and facts sworn to by every one today would be rejected ten years hence. The severity, which so deeply offends contemporaries, disappears by means of the scientific discussions, so that they rather view the inconsiderate writer, even if he be a genius, from afar—regardez mais ne touchez pas—and this is only noticeable in old age. Above all things they sharpen your judgment and guard against one-sidedness which are of inestimable value to our sciences, especially when the incentives for everything more modern are so powerful. The hunt for new methods and means has not yet ceased in our speedy times; we accept them with much enthusiasm when authorized by some great light, declare them infallible, and soon forget them again. The new always pleases only because it is new, and we would like to credit everything that we desire to be true. With these inclinations, in connection with which the tasks of yesterday were deemed old today, so that even the stationer prints the following year's date on the works of the last months of the old year, we learn by the way not to be deluded by deceiving appearances, nor to allow severe censure of the mistakes made. Our wits become more and more sharpened and we are soon able to readily select the cream of the literature contained in journals and exclude the chaff. The horizon of an eagle is not like that of a sparrow in the dusty air below. A knowledge of history will greatly aid in bringing about a more rapid progress in the science of surgery for our general benefit. The results obtained can be more correctly estimated by the education of the middle classes, to which most of the practitioners belong, than by the famous works of a few great men (geniuses). Of what avail is genius during an epoch when not within the comprehension of the practising physician? Not the least valuable part of history consists in encouraging the dejected practitioner and awaken new life, by the examples and great labors of prominent men. To know the history of his profession is a part of his general education and easily keeps pace with the study of the branches, so many grand and renowned men ever being ready to respond to our wants during our lives. An officer in the army can not rise above the routine of the daily tactics, if he does not become familiar with the strategy of Frederick the Great and Napoleon I; the musician may become a good performer, or a fine musical director, but he is no true artist without a knowledge of Sebastian Bach. The value of history must not, however, be overrated, and given the preference, for there is enough for us to learn in our own times and surgical studies would come to a standstill, if history were to redress the auxiliary sciences. Who will dare to prophesy which one is of the greatest importance to the future studies in surgery, experimental pathology, statistics or other things. Besides, this question is as indifferent to us, as the contest for priority of one or the other surgeon is absurd. Most appropriate is Goethe's answer: People should not discuss the point who was the greater, Schiller or he, but to be happy in the possession of two such men. It is very harmful to pit one branch against another in order to ascertain which one would be of the greatest value to the progress of science; whether a piece of work originates at the table of the microscopist, in the laboratory or at the bedside of some patient is all the same when something new is gained in a rational way. All pleasure in the study of natural philosophy ceases, when we pause to consider the question: Of what use at the bedside is the exact difference between a sarcoma and a carcinoma? We do not study the history of surgery for its sake alone, but for the results obtained by the remedies employed, and if I am exerting myself to awaken an interest in this auxiliary branch among practitioners—do I hear some one laughing? I would not for worlds exchange my calling as a practical physician with a professional philosopher. That a historical work, when considered an imposition, would

not be in great demand, I knew; but who thinks of the consequences when working out an idea. I wrote with the conviction that the younger generation of German surgeons know but little of the history of surgery, and as much as nothing of the German historical studies of surgery. The lack of interest is rooted in our egotism which permits us to concern ourselves only in what occupies our minds momentarily—and no one has time to trouble himself with his neighbor's thoughts while he is at work himself. A national feeling for our own past not existing, it had to be roughly awakened from its slumbers. It is to be hoped that more sympathy will now be extended to the history of our sciences as the study of self-culture is growing steadily among the Germans. This was the main difference between German and French surgery: The French honor and remember their great men, the Germans scarcely know the names of their predecessors; the French surgeon looks upon foreigners with contempt, not so the German. Often the rank which a nation holds among the races, corresponds to the notice taken of its scientific works. The past century when France controlled the laws, the whole of Europe studied French surgery and not until after the wars of 1813–1815 did the German profession rid itself of the French influence. Everything from France and England was blindly accepted and revered by the Germans, neglecting their home talent. Of course it was very advantageous for the German student to profit by the good of any of the foreign countries, but thus it was that the development of our surgery remained behind the times, being too weak to stand its own ground. This is not at all surprising. On account of a certain amount of characteristic sluggishness of the German nature, they seldom take the initiative, but when roused to action possess great power of penetration. This is not the case with the French surgeons, who reigned supreme in the past century and have since been outclassed by the German, because they were incapable of following the progress made, having so completely neglected the foreign profession. Enlightened minds have often told them the truth. In 1814 Madame de Staël said that they did not do justice to German literature because so few of them understood the language. In the December session of the Académie de Médecine, in 1860, Verneuil severely criticized the views of his colleagues, who still adhered to French provincialism, in the following extract:

"A l'époque ou nous vivons, nul homme, si habile, si érudit, si actif qu'il puisse être, ne saurait prétendre représenter à lui seul, par son enseignment ou sa pratique, l'art et la science en chirurgie; cette vérité incontestable, je crois, pour les individus, ne l'est pas moins pour les nations, car nulle d'entre elles ne peut se flatter aujourd' hui de tenir exclusivement entre ses mains le sceptre chirurgical . . . les foyers scientifiques, ne se concentrent plus dans une terre privilégiée; ils sont multipliés et disséminés partout sur la vaste étendue du monde . . On cherche dans la littérature étrangère le complément de la scie ce nationale . . . . les résultats qu'on atteint en suivant cette voie sont immenses; mais par malheur, en France, on en paraît moins convaincu que partout ailleurs. Soit indolence, soit confiance extrême dans leurs propres ressources, nos praticiens pour la plupart, restent indifférents au mouvement scientifique extérieur passé ou contemporain."

Perhaps as in former years, the great inventions and discoveries of the present age will be followed by an epoch of new developments in the medical sciences. The downfall of the French glory by means of German weapons was followed by a most promising institution in the month of November, 1872, erected at Nancy after the loss of the one at Strasburg. The medical faculty of the same subscribed for all the German medical journals, bought the German books, and even the dissertations, if at all valuable. The faculty had to arrange a specific German bibliography and make translations of prominent works, in short, aid the French physicians to become familiar with the German sciences. "Jusqu'ici nous avons trop vécu et trop pensé entre nous," said the president in his address to the new faculty. He said in a public meeting of the Institut de France, that her people had fallen so because they had lost all thought of truth by their selfish vanity and pride, they wanted to be deceived and imposed upon. This was the unanimous opinion of all her great men. France was crushed by the falsehoods with which her education of the young, her books and periodicals teemed. The French still read the works of their oldest surgeons and after fifty years or more, publish new editions, while the Germans ignore their famous predecessors and their achievements. No one remembers that Heister's Surgery was the most brilliant work of its time. A. G. Richter, who was Germany's greatest surgeon a hundred years ago, has now become a mythical character, even to our best educated physicians; his burial place in Göttingen can no longer be found, while Sir Astley Cooper, buried in the chapel of Guy's Hospital, has been honored by a memorial in Westminster Abbey. It will not be long before Dieffenbach's life is shrouded in obscurity. Every German student knows that Arnaud made a few suggestions on the crooked bone, that Dupuytren invented the enterotom, although these are only minor discoveries when compared to the great services rendered surgery by both men; but it is very doubtful if every student knows of Smucker's introduction of cold applications in treating injuries of the head, which course would be instinctively pursued by every peasant. In order to give a new impetus to the study of history, great works on that subject are essential; jeremiads are of no avail. At the present time it is more important to awaken an interest in the young student for the study of history in the universities, than to establish special professorships. The clinic instructor will most easily succeed in doing so. The practical physician clings to what he learned at the sick bed, but soon forgets things passed by on the part of his clinical teacher. Lectures should oftener be fraught with remarks on history, and even if his valuable time must not be spent in the pursuit of historical studies, a desire may be instilled and retained later on in his practical life. Although we can not wipe out the stain on history and literature, caused by our dearth of interest, let no one forget the enormous advantages to be derived from modern surgery in Germany, born about forty years ago during the great revolution in medicine. Only since that period has a national German surgery existed, having for its basis doctrines founded by Germany alone. It advanced so rapidly knowing just how to employ the auxiliary sciences and make the best possible use of all the results obtained in the natural sciences. With the increase in methods corresponded the growth of the number of students and each one, if master of any one method, could take part in the medical researches. Thus there was such an immense quantity of scientific matter produced more than during any other epoch of history. There was no end to the work, and the competition was exorbitant! The result was a feeling of analogous rights and independence of spirit among the workers, and to these the German surgery owes its scientific rise. Authority was overthrown regardless of the prestige of its social position, which no longer satisfies a student of today. So the doors were opened to progress, which passed unmercifully over all who opposed the spirit of the times or who were too weak to follow. It is no wonder that this self-consciousness at times attained an extraordinary degree and often causes a morbid condition, for many, talented or untalented, capable of a little work consider themselves as contemporaries in the progress of the sciences.

Buckle, the historian of culture, says of these: "We must remember that the deep thinkers are the world's benefactors, and not the great experimenters, nor the great observers, and not the well read nor the very learned, and those who point out the way to make discoveries are deserving of the highest praise, not those who make them. When the true course of research has been indicated, the rest is comparatively easy. A regular course of routine is always used, and it is not hard to find those who follow the old path, but to find people who will open a new route. Every period of time produces many men of ingenuity and considerable diligence, who are fully capable to add a part to science, but who are unable to extend its limits. A new method is required for such an extension.

In closing allow me to say a few words on the work itself. I chose the subject, Surgery One Hundred Years Ago, because the scientific practice had its origin in Germany at that time. German national feeling began to develop then and produced its deepest philosophers, greatest musicians and best poets. When some one remarks to me that the German surgeons of that time do not interest him because a few French and English contemporaries have far surpassed our countrymen in the sciences. I reply to him that the history of the German nation did not begin on that world-renowned day when the Emperor was crowned at Versailles. If the history of our surgery is to originate when surgical geniuses are born, then it can peacefully rest for a few hundred years, for nature is very miserly in the production of great men and they are to be found only at long intervals. The truly great surgeons are as scarce as the geniuses. This work embraces the eighteenth century, the latter half being the more important. The first part treats of the surgical classes, the last of the surgical sciences. The surgery of our Fatherland ought to be honored by the erection of a national memorial for which I would like to carry a few building stones. German surgery should not forget its youth and faithfully remember the dreams and battles of its childhood years. To present it with its proper coloring, German medicine and foreign surgery had to cast their shadows on it. The history of surgery is international; here French and English surgery have obtained full rights. It was not my intention to write a complete history of the eighteenth century. A picture of the skull is much more interesting to us than the top of the wild cherry tree. From this point of view I ask you to pardon the shortcomings. I write for the practitioners, not for the book learned. If history is to become an

animated practical study, it must be made as entertaining as life itself, but not with a cold heart, nor like a skeleton, pursue its course. History must be contented to wear a simple and becoming dress, instead of one adorned with learned ornaments. The savant has a right to demand information on the sources of knowledge; he must admit, however, that no reading matter or thesis is more fatiguing than that of which the text is decorated with figures referring to certain citations, and almost covered by the extended remarks. It would have been an easy matter to name the various sources, sentence after sentence, but I avoided the great mass of citations in order to obtain the good will of the practical physician. No surgeon will be able to incite a desire among practitioners to take up a neglected study with its dry literature. Such works are dead when issued and from the bookbinder they are ready for the library. Le style c'est l'homme. In order to produce as elegant a form of language as possible a hundred years ago France employed the so-called hommes de lettres, to whom the best physicians and surgeons, as Sabatier and Baudelocque, contributed their writings. No hommes de lettres exist to polish our works, therefore let us proceed!

(To be continued.)

Fourteenth Biennial Report of the Board of State Commissioners of Public Charities for the Years 1895 and 1896.

ARTHUR R. REYNOLDS, M.D., PRESIDENT.

For the last biennial period Illinois appropriated for State charities the sum of $2,962,550. This is a large amount, yet it is only one factor in the incalculable sum which the State by private and public contribution devotes to the care of the dependent classes. Scientific investigation has demonstrated its economic value in discovering sources of disease and disability and in suggesting methods of prevention. We submit that the State can not afford to conduct its charitable institutions merely for the immediate and direct alleviation of suffering and the protection of the inmates, primary and vital as this purpose is. The State has in these institutions great resources for research and study. Their proper use in furthering medical education, in promoting scientific investigation is due to the future of society and to the taxpayers of Illinois. Such use means no lack of consideration for the sick and helpless charges of the State. On the contrary, it means for them, now and at once, more faithful humane care; while it means an effort to benefit future generations by prevention rather than by cure. Work has already been done in a few of our institutions in accord with above. We make further suggestions below, and in regard to others we make no specific suggestion at this time, although the principle is applicable to all.

The following classes of institutions are by law subject to the examination of the State Board of Charities in Illinois, namely: 1, State charitable institutions which have been enumerated before; 2, the county jails and almshouses; 3, industrial schools; 4, private insane asylums. To those various institutions in the period since the last biennial report nearly four hundred visits have been made by various members of this board. These visits have been made at irregular intervals and in most cases unannounced. The board does not undertake in what follows to discuss all these institutions in detail, but merely to make suggestions upon those subjects of most immediate importance or urgency.

BLIND.

The Eye and Ear Infirmary at Chicago, the School for the Blind at Jacksonville and the Industrial Home at Chicago constitute the State provision for the blind. We believe this provision is ample in scope, and, when the equipment of the Industrial Home is completed and the hospital at the infirmary enlarged, it will be adequate to the reasonable needs of the blind and a credit to the State. As we have indicated elsewhere, the infirmary at Chicago should be enlarged and the Industrial Home must be completed and equipped.

HOME FOR JUVENILE FEMALE OFFENDERS.

Since the last biennial report of the Board of Charities this institution has left its temporary quarters in the city and has moved to its permanent location near Geneva, in Kane County. It has a fine piece of land, about fifty acres, overlooking the Fox River and giving opportunities for dairying, gardening, poultry-raising and such outdoor occupations as girls may be taught. The building is of brick, two stories and attic, divided into sections or flats absolutely distinct, each having its own dining-room and kitchen, superintended by a matron, thus permitting classification of inmates. The girls are now taught the work of a house and sewing—other occupations will be added as rapidly as practicable. All the girls are now in school half of each day. Girls are placed out in carefully selected homes, where their past history shall prejudice them as little as possible and where they may have the most favorable opportunity for a fresh start in life. Girls are placed in homes in accordance with Section 27 of the act creating this institution. The Home for Juvenile Female Offenders is administered upon the theory that if the girls are to be reformed they must be given new and better tastes and must be taught a way to gratify these tastes in the course of earning an honest livelihood. The trustees and superintendent are laboring with unusual earnestness and are entitled to great credit in the organization of this new institution. The Home is now caring for about seventy-nine girls. It is already crowded and such good work should not be limited by lack of equipment or space. We have elsewhere advised the erection of another simple cottage.

The provision for the deaf and dumb we believe is also generous and creditable to the State. Of course, the schools for the deaf and dumb and for the blind, like all educational institutions, need constantly some renewal or increase of equipment.

FEEBLE-MINDED.

The School for the Feeble-minded at Lincoln, which now contains 639 children, is crowded far beyond its capacity. Upon its books are 361 urgent applications; of these 162 are for epileptics.

Feeble-minded children and epileptics are found in many almshouses, and even in some insane asylums. The application list at Lincoln, however, shows that there are more children in private families who need State care than in institutions, parents only sending their children to an almshouse as a last resort.

A notice was sent out through the auxiliary county boards, which was published in the summer of 1896 in a portion of the county newspapers, requesting information as to epileptics. As a result of this a number of most pitiful cases were reported, indicating that of which the board is well satisfied from its general information and observation, namely, that the number of feeble-minded and epileptic in need of State care is much larger than is apparent at first, and above all that their presence in the community uncared for and unprotected is dangerous to them and to the public.

The presence of a feeble-minded child in the home of people of scanty means is usually a great hardship, often making the family incapable of self-support. As a matter of economy it is much wiser for the State to provide fully for the care of feeble-minded children than to leave them in homes which they practically reduce to pauperism by their presence. Even if this is not the case, the child can receive no proper training except by a degree of attention impossible in an ordinary family, and grows up into a positive menace to the community in too many cases; whereas, under proper guidance and protection such a child may be made, in some cases, almost self-supporting, and at least not dangerous to the community at large. We are of the opinion that the wisest economy as well as the soundest humanity requires that the State provide institutional care for all feeble-minded children whose parents can not give them proper care and protection at home. As the feeble-minded person never advances beyond childhood, we believe that the State is justified in assuming the permanent custody of all those who enter the institution for the feeble-minded and who can not be safely protected by their natural or legal guardians.

The State must especially learn the necessity of protecting feeble-minded women and girls. The moral imbecile is too often held to a stern responsibility which she can not even understand, but is now given the protection and segregation which her feebleness demands. Some of the facts as to parentage given in the list of children in the Cook County Almshouse, shown in the appendix to this report, as well as similar instances in many a county almshouse, point out the moral that the State should assume custodial care of this class.

It was plainly the original intention that the school at Lincoln should be a school for improvable feeble-minded children, not epileptics. But the pressure for admission has been so great that there are now at least 125 epileptic children at Lincoln. In our opinion the institution at Lincoln should be somewhat enlarged, and we have approved the request for the erection of a girl's cottage for sixty, and a house for boys on the farm to contain about fifty inmates.

EPILEPTICS.

We recommend that the State provide a separate institution for epileptics, for the following reasons:

1. As the proportion of epileptics is about 1 to 600 of the population, making in Illinois an epileptic population of about 8,000, from which the ranks of the dependent epileptics are

constantly recruited, and as the disease is one which at present almost baffles medical skill, we believe that the State should promote the study of this disease with a view to curative or preventive measures. This is only possible in an institution where such cases can be under constant observation.

2. The medical treatment and diet of epileptics should be different from that of feeble-minded children not epileptic.

3. As the institution at Lincoln was not intended for epileptics, this class has therefore been discriminated against necessarily in admitting children. As was stated above, 162 of the 361 applications now on file are for epileptics, so that a separate institution for epileptics would not only relieve Lincoln of about 25 per cent. of its population, but would provide for about 45 per cent. of those on the application list.

4. There are also throughout the State a large number of adult epileptics, found occasionally in almshouses, who are able to work a portion of the time, but whose seizures prevent their employment in the ordinary affairs of business life. An institution modeled somewhat after the Bielefeld Colony, in Germany, or the Craig Colony, in New York, seems to us the wisest expedient for the feeble-minded and epileptics of the State, who are now neglected, and whose neglect is not only causing great suffering, but is entailing an expense which can not be estimated, but which is certain to be very great upon this and future generations. The presence of adults able to work in a place particularly adapted to their infirmity would prove an economy and great assistance in the care of the helpless. Doubtless a considerable portion could be practically self-supporting under conditions which made it possible for them to work when able. We especially urge that this institution should be upon what is called the colony plan, and advise the purchase of at least one thousand acres of land for this institution. A considerable number of small buildings of simple construction will be needed to care for the various classes of inmates. Not only farming but various other industries should be provided, so that the colony shall be as nearly self-supporting as possible.

5. There are in our insane asylums a considerable number of epileptics, probably 7 per cent., or nearly 400, who are sane between their seizures, or who could be allowed more liberty than is considered prudent in the hospital for the insane. For instance, in the Central Hospital there are 100 epileptics, of whom the superintendent, Dr. Watson, says: "Ninety per cent. have lucid intervals and are all able to work more or less. They would be much better off in the country on a farm where they could be regularly employed at out door work." Good authorities recommend that a certain proportion of the epileptic insane be transferred to an epileptic colony. If for no other purpose we believe that the medical study of the disease makes it desirable that this class of patients should also be included in the population of an epileptic colony. There is no reason why they can not be cared for there as well as in any other institution, if separate means are needed. Thus there are now:

In the school for feeble-minded	125
In the insane hospitals (estimate)	400
Applicants for admission to Lincoln	162
In the almshouse (estimate)	100
Total	787

All of these could be cared for better in a separate institution besides an uncertain number known to exist who should be in the care of the State.

In conclusion, we urge an epileptic colony, first, to afford protection, together with the greatest degree of freedom consistent with the safety of the inmates and society, for a class of our population now suffering, neglected and too often a public menace. Second, to provide education, training and industrial pursuits for all who can be taught or who can work. Third, to apply the best medical care and investigation to the study of epilepsy so as to insure such alleviation as possible for the inmates, so as to obtain and diffuse knowledge as to the nature and prevention of this disease, and so that by a careful study of the influence of heredity the people may be fully informed of the responsibility of parentage, with the hope that the future burden of the State and society may be lightened.

STATE CARE FOR THE INSANE.

The following figures show the population of the various State institutions for the insane yearly since 1890:

June 30.	Northern.	Eastern.	Central.	Southern.	Criminal Insane.	Total.
1890	522	1,687	912	627	—	3,748
1892	1,010	1,710	1,180	840	113	4,853
1894	1,107	2,096	1,231	825	116	5,372
1896	1,178	2,158	1,207	829	123	5,495

The insane in the county almshouse are 2,265 in 1896.

The erection of the Western Hospital for the Insane near Rock Island, planned for 1,000, immediate capacity 480, and the Asylum for the Chronic Insane at Peoria, immediate capacity 200, will give much needed relief to our crowded State hospitals and will permit State care of a portion of the most urgent county-almshouse cases.

It is the conviction of the Board that the State should provide, without further delay, some complete and systematic plan of caring for all the insane of the State or for supervising authoritatively their care if any are left in the county almshouses. It is true that this Board has the duty of visitation, but an annual visit to an almshouse with no power to enforce any improvement in the care of the insane who may be confined there, becomes no better than a painful travesty when there is need of improvements which cost money and attention.

In many of the counties the following hindrances to reasonable care of the insane appear: 1. Political influence in the appointment of the almshouse superintendent. 2. The lack of popular knowledge as to what constitutes proper care of the insane. 3. Unwillingness of boards of supervisors to make necessary expenditure. 4. The practical impossibility of providing humane and adequate accommodation for a few insane, unless the cases are of the mildest type. Even if these difficulties are not all found in all counties, they exist in most, so that many insane do and must suffer (as all the reports of this Board for years past have shown) under our present arrangement. Common fairness seems to us to demand an equality of care which can only be secured by State maintenance.

In the opinion of the Board, any permanent plan should be elastic enough to permit the inauguration of experiments in "boarding out" quiet chronic cases, as we are strongly of the opinion that ultimately a certain proportion of our insane must be cared for in this way. The Board deprecates the suggestion of one large asylum for incurables, but would rather urge the extension of our present system of smaller mixed hospitals. The medical testimony gathered by the Board in 1895 shows that such European authorities as Dr. J. Morel of Ghent and Dr. Hartniz of Alt Scherbitz, and such American authorities as Dr. Wise, formerly superintendent of the St. Lawrence Hospital, N. Y., and the Ohio State Board of Charities, favor mixed hospitals as against special institutions for the incurable insane. The mixed hospital gives a working force, which is an important consideration, and reduces the cost of caring properly for acute cases. The stamp of hopelessness is set upon the hospital for incurables, and it is hard to enlist such medical interest or skill in its behalf as is necessary to maintain it above the level of an almshouse.

We wish to emphasize the need of a better popular understanding of the fact that insanity is a disease, no more discreditable to the victim or shameful to his relatives than rheumatism.

If the superstitious dread of an insane person could be overcome in the popular mind, many of the mild cases now immured for life in the institutions could be cared for at home, at a considerable saving of money to the State. If a proof of this were needed it could be too easily found in some of the chronic insane in almshouses. In repeated instances quiet cases returned from State institutions live with the other inmates without any difference in care, never running away, behaving peaceably and usually working far more faithfully than the sane inmate of equal strength. Again, numbers of old persons in various stages of senile dementia are received at the hospitals, not dangerous or unsafe to be at home, nor requiring care and attention impossible at home, but needing a little indulgence for their vagaries.

In regard to old people, we quote from Dr. Loewy, Superintendent of the Northern Hospital, who was asked to report upon this matter. He states as follows:

"Case 1. An old lady between 60 and 70 years old, in poor physical health, mental aberration very slight, as shown by simple mental enfeeblement. This patient has some means, and her conservator and myself have made repeated efforts to have her cared for by her sisters, but without result; and only within the past week have we been able to make arrangements with a neighbor of hers, where she used to live, to care for her. Her means are sufficient to care for her to the end of her days.

"Case 2. A patient about 60 years old, who is slightly exalted mentally, who occasions no trouble, and to my mind could be easily cared for at home were her relatives willing to put forth the effort.

"Case 3. A patient about 70, usually very quiet, no trouble to any one, but as her friends express it, she tires them out.

"Case 4. Very quiet patient, very slight mental aberration and has been here for several months. I have tried to get her children to take care of her, but they all evade any direct statement by me in regard to taking her home, by stating that they have not time to visit her.

"Cases 5 and 6. Patients each about 60, who have some

delusions of persecution, but I believe could be cared for at home.

"Case 7. Patient is very quiet and the mental aberration is extremely slight, and could be easily cared for were her friends willing to make a few sacrifices.

"Case 8. A very quiet patient, slight mental aberration and could be easily cared for.

"Cases 9 and 10. Two old men who are mentally enfeebled, one bedridden, but both could be easily cared for at home were it possible to make this a compulsory matter.

"I could cite many more cases, and think that on both male and female sides there must be between thirty and forty patients of this kind who could be cared for at home at least part of the year; but the friends of the patients evade any responsibility in the matter by stating that they do not want to take the patients home until full recovery takes place. I have just received a copy of the last report of the Southern California Hospital, and the Superintendent makes reference to cases which he thinks could be cared for at home but for what he calls a lack of filial affection."

Dr. William Watson, Superintendent of the Central Hospital, says:

"I have 134 cases of senile insanity; 94 males and 40 females. These people are all over 60 years old and might be cared for by their friends, if they were willing to take the trouble and cared to look after them."

Judge Orrin N. Carter, County Judge of Cook County, recently remarked upon the number of cases of senile dementia brought before him, and states that they are seldom dangerous or excited, and that their condition, sent away from the familiar surroundings of their lives to end their days in a great institution, renders them the most pitiable of all the insane brought before him.

MEDICAL EDUCATION.

If the increase of insanity is to be stemmed by the medical profession, we are satisfied that the general practitioner must be depended upon rather than the alienist. The general practitioner sees the patient when insanity might be arrested. The alienist usually sees him only when symptoms are unmistakable. The family physician knows the patient in the usual surroundings of his life and can discern the external causes which may provoke an outbreak. If he were acquainted with the symptoms of the disease he could often perform a preventive function impossible to the specialist.

We regret to see that several of the recognized medical schools of the State do not include mental diseases in their announcement of courses, and that the others allot this subject of such profound importance but meager attention; the school requiring most in this regard allowing the subject of mental diseases a credit of 1 out of the total 55 required for graduation. We earnestly bespeak the interest of our medical schools in behalf of more extended courses and better clinical advantages for this subject, and would heartily favor any reasonable arrangement with the State hospitals which should secure to students additional opportunities.

INTERNES.

It is largely in view of the importance of a knowledge of insanity to the general practitioner that we have urged the appointment of internes to our State hospitals for the insane. The Board wishes to acknowledge the approval of the Governor and the coöperation of the superintendents in the inauguration of the system of the appointment of internes by annual competitive examinations. The last examination was held in Chicago in May, 1896, and resulted in the appointment of nine internes, eight men and one woman, as follows: three to Eastern Hospital, two to each of the three other hospitals now in operation. It is believed that their usefulness to the hospitals and to themselves, and to the public, can be further greatly increased by arranging a course of work and investigation for them which shall be uniform in all the institutions.

(To be continued.)

SELECTIONS.

A Strange Experiment in Insurance in Switzerland.—The December issue of the *Consular Reports*, contains an article on a Swiss scheme for insurance against loss of work by the canton-governments of Berne and St. Gall. The following extracts will suffice to give to medical readers who are interested in insurance a glimpse of this singular experiment ostensibly begun in the interest of so-called "laboring classes." It may be stated that St. Gall has already abandoned the plan, chiefly for the reason that the really industrious workingmen found themselves unbenefited, and the system resulted in the promotion of laziness and idleness. The article says: State socialism, it is claimed, has its strongest hold in the mountain republic. In almost every need the people look to legislation for relief. Notwithstanding numerous failures, the masses of Berne and Basle, Geneva, Zurich, and Lausanne look to the Government for aid unknown and unheard of in other countries. In 1893, a petition was sent to the Federal Government demanding laws against enforced idleness. The petition urged that each citizen had a right to remunerative employment, and asked that the law be invoked to aid him in getting it. To do this, it was demonstrated that in certain industries those then employed would have to work fewer hours in order to leave something for those who otherwise would be forced or kept out of employment. To carry out this scheme, the State was either to employ the idle in State factories, making the same goods, or to compel existing institutions to take them. The proposition was voted down by 308,289 votes against 75,880 in the popular assemblies. The vote by cantons was "No," and unanimous. However, to show good will in the matter, the Federal Assembly urged the federal council to appoint a commission to inquire into the matter. It might cost money, but it would be money well spent. The object was to find out whether it would be wise or worth while to open bureaus to aid the unemployed to get work and societies to insure against loss of labor. The commission has not reported. This has not deterred two cantons—Berne and St. Gall—from going ahead. Basle, Zurich and Lausanne are very much interested: what action they will take is not known. The Berne plan differs very essentially from that of St. Gall. In the former canton, it is left to the free will of the laborer to insure or not, as he or she pleases; in St. Gall, each must insure. The basis of the Berne system is as follows: The working people, laborers and professional men, are all united under one head. Each person insured pays 8 cents a month. Each city in the canton contributes 7,000 francs ($1,351), formerly 5,000 francs ($965). Members must have been enrolled six months, paid dues regularly, and be out of work fourteen days at least before being entitled to a pension. The aid given is 1 franc daily for unmarried men and 1.50 francs for married men. Only men are pensioned. The money is paid only during December, January and February. A workman who refuses to take any work offered him, or loses his work through his own fault, or joins in a strike loses all rights to the pension. On December 31, 1895, the organization numbered 605 members and had paid pensions to 169 persons during the year. In 1894, there were 390 members, and the parties to whom pensions were paid numbered 226. In this case, it was more a State help than a workingman's insurance club; for in 1894, unaided by the cantonal subscription, payment would have been impossible. Most of the men supported or aided belonged to the building occupations. These are more or less idle year in and year out. Hence it is hard to say what worth such an effort is to have in solving the huge social and comic problem, *i.e.*, the effort made in Berne.

Much misery, it is true, might in this way be wiped out, but men whose labor has always been steady and is likely to continue so complain bitterly about being compelled to support others in idleness whose labor, though at times uncertain, is for that very reason better paid when there is work. It is not in the nature of things for such a system to succeed even among so loyal, loving, and gentle a folk as are the Swiss. The effort is not in vain if it will teach the thoughtless how hard it is to make laws or to institute any system that is to take the place of thrift and economy during the days when work is plentiful. The decision of the commission will record the popular will, and that, as far as can be judged from facts at hand, will be adverse.

Treatment of Morbus Basedowii and Epilepsy with Total and Bilateral Resection of the Cervical Sympathetic.—T. Jonnesco of Bucharest has performed this operation nine times, stimulated by the success obtained by Alexander and Jaboulay in their partial operations. (See the JOURNAL, pages 546 and 1248, vol. 27.) In his three cases of genuine epilepsy there have been no attacks since, and only a slight transient vertigo in one case at times. In the two cases of morbus Basedowii the exophthalmus disappeared, the goitre diminished in size and the tachycardia ceased in one case, but still persists in the other. The other operations were for chorea with hystero-epilepsy, cerebral tumor with epileptic attacks, hysteria and progressive paralysis. No benefit was derived in these cases. The fact has been established by physiologic research and also by an attack of epilepsy occurring while Doyen was performing a hemicraniotomy, that a disturbance in the cerebral circulation occurs simultaneously with the attack. The troubles in morbus Basedowii evidently proceed from the sympathetic cervical, and resection of this nerve is therefore clearly indicated in this disease, even if it is necessary to tie the vertebral artery to complete it. He recommends the operation to others, stating that it is absolutely free from serious after-disturbances. He describes his technique in the *Cbl. f. Chir.* of January 16, which can be summarized as follows: 1. The incision in the skin begins at the posterior border of the mastoid process and is carried below the clavicle along the posterior border of the sterno-cleido-mastoid. The incision is made through the skin, the platysma myoides, the external jugular vein after ligating it in two places, and the branches of the superficial cervical plexus. 2. The posterior border of the sterno-cleido-mastoid is exposed, and 3, the nerve cord is found. Sometimes it is in the posterior wall of the cervical vascular sheath. Tearing open this sheath with the sound, the gangliated cord is easily distinguished by its relations with the internal jugular vein and its location outside of the pneumogastric. It can be seen through the prevertebral fascia and is easily distinguished from the phrenic nerve just outside of it. 4. It is drawn out and stripped of the connective tissue with a hollow sound, as far as the base of the skull. The fusiform superior cervical ganglion is then exposed front and back, and detached, preferably with the finger. When the upper end is reached and detached it is cut with a special pair of blunt curved scissors, first the branches and then the cord above, from front to back, from within forward, and from above downward, to avoid injury to the surrounding organs. The field of operation must be cleaned by separating some of the occipital attachments of the sterno-mastoid and drawing up the vaso-motor funiculus and the sterno-mastoid with a hook 4 cm. wide and 3 cm. long, inserted in the upper angle of the wound. 5. Resection of the middle and inferior cervical ganglia. The middle cervical ganglion is often absent, but two sympathetic branches are always found in the corresponding spot, surrounding the thyroid artery. In some cases the thyroid artery was so rigid that it had to be cut between two ligatures to expose the middle ganglion or the plexus that replaced it. The resection of the inferior ganglion is the most difficult part of the operation, as it lies in the deep groove between the scalenus posticus and the spine, covered by the vertebral artery and vein, in direct contact with it and of such size that they entirely fill the groove. Another difficulty is that this ganglion forms one single mass with the first and even the second thoracic ganglion, which extends along the spine in the thorax. The pleural cavity is also in more or less intimate relation with the inferior ganglion and the neighboring organs, so that it may be opened during the operation. If we consider also the enormous current of blood in the retro-clavicular veins and the arch of the subclavian artery, the difficulty of operating in this extremely vascular region becomes evident. But nevertheless the extirpation of the inferior cervical ganglion is possible and Jonnesco has performed it twelve times. He inserts again the hook mentioned above and detaches some of the attachments of the sterno-mastoid to the clavicle. Then the gangliated cord is separated from the vertebral artery and vein, which are both pulled forward. The ganglion thus exposed is freed from the bone and by pulling it a little all the branches are brought into sight. These are cut in turn, including the vertebral and cardiac branches, and the ganglion is thus extirpated. If the pleura has been opened the wound is seized quickly with the forceps and ligated. The operation is completed with a deep suture, uniting the posterior border of the sterno-cleido-mastoid to the subcutaneous tissue. The skin is closed without drainage, which is useless. All the wounds healed rapidly *per primam*. The length of time required for the operation ranged from one-quarter to three-quarters of an hour. The only inconvenience observed was a transient redness of the face, lachrymal and nasal secretion and a transient contraction of the pupils. He considers his success sufficient to encourage others to work along the same lines, as a certain and safe method of treating diseases which have hitherto baffled us.

Health Points for Eastern People Wintering in Arizona.—The two principal towns in the southern portion, chiefly sought for their climatic advantages, are Phœnix and Tucson. Each of them has 10,000 inhabitants or more. They have the electric light, telephones, trolley cars, plenty of hotels, banks, book stores, good schools, churches, an occasional theatrical performance, sometimes a lecture or a circus, often a horse race, and, in the spring a thoroughly curious and interesting "fiesta." For the rest, people must take their amusements with them. Good horses are abundant and cheap, and there are plenty of cowboys—the genuine article—to show what horses can do. The driving for fifteen or twenty miles in almost any direction from Phœnix is nearly always easy. The roads are apt to be dusty; but there is one well sprinkled drive of six or eight miles, and since the winds are quite regular in their direction it is rarely difficult to choose a route on which the dust will be largely carried away from you. The unbroken desert itself is often as easy to drive over as an Eastern highway, and the whole valley is a paradise for bicycles or equestrians. If a mountain region, considerable altitude and a comparatively low temperature are desired, Prescott is in a picturesque region, near a great mining district, and has the social advantage of an army post, Whipple Barracks. Flagstaff is still higher, is in a region of dense pine forests and is within a hard day's journey of one of the wonders of the world, the Colorado Canyon. Oracle is a pretty mountain nook, embowered in splendid live oaks, like those of California, and is also near an important mining district. If lower altitude and a distinctly semi-tropic climate is desired, the three places most likely to be considered are Yuma, Tucson and Phœnix. The first is near the sea level, is the warmest and probably the driest of the three, has the least population and the smallest provision for visitors. Tucson is the oldest town in the Territory and, after Santa Fé, perhaps the oldest in the Southwest. Its adobe houses give it a Mexican look and are thoroughly comfortable. Its newer houses are of a handsome building stone found in the vicinity. The Territorial University is here, and it was formerly the capital. The elevation being more than double that of Phœnix, it is somewhat cooler, and as there is next to no irrigation near it the air is a little drier. Phœnix is in the center of the greatest irrigation in the Territory. The country for miles around smiles with green fields, covered with almost countless herds of cattle, and it is everywhere shut in by low mountains. It is the Territorial capital, has the Government Indian School, the Territorial Lunatic Asylum and other institutions, and is the general focus for the Territory. Like Tucson, it has its occasional wind and storms, perhaps not quite so often. At either place visitors who know how to

adapt themselves to circumstances can be entirely comfortable and in each they will find an intelligent, orderly, enterprising and most hospitable community. They will find a country full of mines, full of rich agricultural lands, abounding in cattle and horses, in vineyards and orchards, and the beginnings of very successful orange groves—a country in fact, as full of promise for hardy and adventurous men now as California was in the fifties. Above all, if it has been their lot to search for health in far countries, they will revel in the luxury of being in their own land, among their own countrymen, within easy reach of their friends by telegraph or rail, and in a climate as good of its kind as any in the world.—*New York Tribune.*

PRACTICAL NOTES.

Treatment of the Insane by Repose in Bed.—It has been found in St. Petersburg that insane patients are very favorably affected by being kept in bed, and the system has been introduced on a large scale for noisy, excitable patients and cases with psychic depression and general debility. Neither force nor narcotics are used, but the patients are merely habituated to remain in bed, although they take their walks and physical exercise every day as usual. It is not necessary to keep them in separate apartments and the economy of space and trouble to the attendants renders the practice a great convenience.—*Presse Méd.*, December 29.

A Case of Fatal Hysteria.—The *Ravista Med. de Sevilla* for October contains the description of the case of a young woman who after a brief married life and separation was attacked with all the "algias" known to science, with functional disorders in every organ and phantom tumors, etc., a most distressing case which was diagnosed as hysteria. This diagnosis was confirmed when after years of suffering the patient dreamed that if she received the communion she would be freed from her troubles, as proved to be the case. It was the first time anything had passed into her stomach for weeks, as a constriction in the esophagus had prevented her taking food. This miracle of her complete restoration to health continued for some months, when her former state returned in an aggravated form, accompanied by serious gastro-intestinal disorders and a peculiar pigmentation of her face, as if she had been tattooed with blue paint; fever and complete insomnia rapidly terminated her life.

Salubrol, a New Antiseptic Powder.—Salubrol and Salubrol gauze (20 per cent.) are designed to substitute iodoform, and are proving successful on small abscesses, boils, burns, etc., as they dry the surface rapidly and promote the formation of the scab to such an extent that small abscesses do not require dressing after being sprinkled with the powder. Experimental tests on animals demonstrate that it is completely non-toxic, while its bactericidal power is so great that it not only prevents the development of bacteria, but kills already flourishing developed colonies of staphylococci, anthrax spores, etc. It is made by the action of bromin on methyl-bis-antipyrin, and corresponds thus approximately to a tetrabromin derivative. It is not adapted to use on large surfaces as it dries them so fast that fresh granulation does not occur to the desired extent. There is no irritation of the skin from its use, but it causes smarting in some cases, when applied as a powder, but not as a gauze.—M. Silber in the *Deutsch. med. Woch.* December 24.

The Influence of Antidiphtheria Serum on the Kidneys.—In *Virchow's Archiv*, for November and December, appears a clinical and experimental study of the influence of Behring's diphtheria serum on healthy and diseased kidneys by Dr. F. Siegers. He finds that slight transient albuminuria and albumosuria are often induced, and that although occasionally acute parenchymatous nephritis and hemorrhagic nephritis have been observed in association with the injection of the serum, the dependence of the renal lesion upon unaltered serum has not been proved. Suppression of urine has been observed experimentally as well as clinically. Preëxisting albuminuria is not unfavorably influenced by the use of the serum, the employment of which, if its specific value in diphtheria is proved, ought not to be set aside on account of any renal effects.

The Bacteriology of Colitis.—Before the Liverpool Medical Institution, Dr. A. W. Campbell showed specimens and cultures of a bacillus isolated from the cases of colitis occurring in Rainhill Asylum. The organism is a small short rod morphologically allied to the bacillus coli communis and others of that genus; it grows freely on agar-agar, gelatin and potato; it does not liquefy gelatin, its growth is not stopped by potassic iodid, it forms gas abundantly, it coagulates milk and is motile. So far cultivations from the feces of three cases suffering from the disease have been made, and some initial experiments performed in Professor Boyce's bacteriologic laboratory seem to point to a causal relation between the bacillus isolated and the disease in question. In case No. 1 the cultivations were made when the disease was at its worst, the patient being severely purged, prostrate and pyrexic, and a rabbit inoculated subcutaneously with 3 c.c. of a broth culture died in nineteen hours after showing signs of commencing diarrhea. At the necropsy of this animal the intestinal canal was in a condition of acute catarrh, the feces were liquid, the mesenteric glands enlarged, and the blood teemed with the organism. In case No. 2 cultivations were obtained from another acutely suffering patient and inoculation into another rabbit produced severe diarrhea, along with general prostration lasting for four days. The animal was killed at the end of a week, when it was showing signs of recovery, and on postmortem examination, though there was no catarrh of the intestinal canal, still the Peyerian patches, the solitary glands in the large intestine and the lymph glands in the mesentery were swollen and the organism was present in the blood. In case No. 3, cultivations were made from the feces of a patient recovering from the disease, and it was interesting to find that a rabbit inoculated with some of the growth presented no signs of the disease other than edema round the seat of inoculation. Dr. Campbell mentioned that the next step in the investigation would be to endeavor to produce the disease in swine, because he had observed in pigs which had died from "swine fever," in addition to the specific lesion, a condition in the large intestine which bore much resemblance from an anatomic point of view to the change in the large intestine of the human being dying from colitis.—London *Lancet*, December 19.

Hydrotherapeutics.—W. Winternitz states that in various epidemics of infective diseases in which he has treated some patients with antipyretics, others with hydrotherapeutics and others expectatively, the proportion of mild cases was larger with the hydrotherapeutic than with the others. He claims that the failures in hydriatics are due to the incorrect application of the baths. He always decides the indications for them by a test sponge bath of a small portion of the surface of the body. The reaction from this shows the condition of the heart and cutaneous vessels. The latter are exceedingly excitable in typhus and pneumonia, while in measles and scarlet fever there is almost a paralysis of the peripheral vessels, and the strongest thermic excitation scarcely produces any reaction. If the test bath results favorably, he gives baths of 25 to 20 degrees C. in typhus and pneumonia, while in measles and scarlet fever, and also in the eruptive stage of variola, short baths at a low temperature are indicated. In regard to the indications for cooling, heating and stimulating packs it is important to bear in mind that leucocytosis is established by cold baths, while with stimulating applications a moderate leucocytosis is accompanied by a strong erythrocytosis. Stimulating applications

should not be covered with a moisture proof covering as the heat is drawn from the skin to dry the cloths, which does not occur with impregnated material. If the wet cloth is about the temperature of the blood, the skin under it will feel cool although an active hyperthermia is being excited by the stimulating application. He disapproves of Germain Sée's theory that it is best to wait before beginning the hydrotherapeutic treatment until the disease has advanced to a certain stage as it renders the diagnosis so difficult, remarking that the life of the patient is worth more than the diagnosis.—*Wien. klin. Rundschau*, December 27.

Negretto's Radical Cure of Ischuria from Hypertrophied Prostate by Cauterization through the Rectum.—The annoyances of castration are avoided by this method, which does not interfere in any way with the genital organs. It is simple, effective, and free from any danger, and Negretto considers it superior not only to castration and section of the vas deferens, for various reasons, but also to all other methods suggested to date, including Bottini's thermo-galvanizing process. It is described in the *Gaz. degli Osp. e delle Clin.*, of December 27, with the reports of five cases treated. Rapid and permanent cure was invariably secured, and this experience was confirmed by numerous experiments on animals. It is especially indicated in the congestive stage, as it is sure to produce atrophy of the prostate. His instrument consists of a sharp, slightly curved hook, 1 cm. long, on the end of a straight graduated stem about three inches long, with a slanting handle. The evening previous to the operation or the night before that, a saline purgative is administered, and one or two rectal injections are given an hour before the commencement of the operation. After chloroform the patient is placed in the peritoheal cystotomy position with the pelvis raised very high. The rectum is dilated with the Collin or Weir speculum, and a short distance above the gland the rectum is plugged with iodoform gauze to prevent fouling the site of the operation with fecal matters. After this the speculum is removed and with the left forefinger the center of the prostate is located, and the hook introduced, guided by the forefinger, and inserted in the center of the gland, a slight traction serving to hold it in position. The figures show the exact distance the stem has penetrated in the rectum and also any displacement. It is then entrusted to an assistant to hold, warning him to continue the traction. The speculum is reinserted and any scraps of the rectal mucosa are removed with a wad of gauze. The prostate is then cauterized with the Paquelin cautery or with the galvanocautery, around the hook, the extent depending upon the case. The operation is completed in two minutes on an average. If necessary the assistant can render the region of the prostate more prominent by pressing on the suprapubic abdomen. After the operation a large dose of bismuth subnitrate with opium is administered, to keep the bowels from moving, and a permanent Nelaton catheter is inserted in the bladder. It is changed in a few days and the bladder periodically disinfected. The sixth or seventh day an oil purgative is given and the gauze plug is expelled with the discharge. At the end of ten or twelve days the catheter is finally removed and the patient henceforth urinates without difficulty.

Insuffiency of the Bacteriologic Diagnosis of Diphtheria.—Dr. Spronck in *Semaine Médicale*, Sept. 4, 1896, points out that although a bacteriologic diagnosis of diphtheria is very easily and certainly arrived at, nevertheless cases exist in which bacteriologists disagree. Cultivation in serum, followed by microscopic examination, shows that there are three varieties of the diphtheria bacillus. On the serum these are differentiated only by size; the short bacillus, however, closely resembles the pseudo diphtheria bacillus described by German authors. As regards virulence the short bacillus is regarded as extremely benign, the intermediate as less so, and the long bacillus as the most toxic of all. It might be thought that the small bacillus described by French writers was identical with the pseudo-bacillus of German authorities, but doubt is thrown on this by the results of experiments on guinea pigs. Though benign, the small bacilli in cases under observation differed in their degree of benignity, though none of the animals affected died. The cultures used were in all cases pure. To determine whether or not two pathogenic specimens were true diphtheria bacilli recourse was had to antidiphtheria serum. If the true diphtheria bacillus had been present, this should have been capable of protecting a guinea-pig from ill effects. This was not found to be the case. Spronck concludes that there exists a pseudo-diphtheria bacillus, which is pathogenic to guinea-pigs, hitherto unknown or mistaken for the short bacillus. Researches on the but slightly pathogenic pseudo-diphtheria bacillus showed that in time the cultures lost their virulence, and when spontaneously attenuated could not be distinguished from von Hoffmann's pseudo-diphtheria bacillus. This proves that the relationship said to exist between the latter and the diphtheria bacillus can not be admitted without reservation. Probably von Hoffmann's bacillus is derived sometimes from the true diphtheria bacillus, at other times from a slightly virulent pseudo-diphtheria bacillus. It seems justifiable to think that microscopic examination of the colonies is adequate, and it is necessary to control the diagnosis by the experimental use of antidiphtheritic serum.—*British Medical Journal*, December 26.

Tuffier's Technique of Intravenous Injections.—According to Tuffier the facts to be borne in mind in these injections are that there is no toxic dose, but only a toxic *speed*, and that the kidneys must be sound. The intravenous method is not difficult nor dangerous, as no harm results if air gets into the veins, while the absorption is certain and the effect apparent at once. It is applicable in hemorrhages and medical infective diseases, but is of especial value in surgical and obstetrical infections. It increases the intravascular tension and is an almost indispensable preliminary to an operation after part of a member has been crushed. It has been found effective in cholera and recently in two cases of tetanus. Infection of the kidneys is the only contraindication. The formula used is: Water, 1 liter; sodium chlorid, 8 grams; sodium sulphate, 10 grams. The serum is boiled or better still sterilized in the autoclave at 115 degrees C. for ten minutes. The chances of infection are reduced to a minimum by Voisin's contrivance for keeping the serum in balls with two openings; the rubber tubing is attached to the shorter small tube, at one opening, and the ball placed on some suitable support. At the moment of the injection the serum should be about 40 degrees C. The preferable injecting point is the internal saphena just in front of the internal malleolus, where it can be easily palpated. An incision two centimeters in length exposes the vein, which is then taken up on a grooved director. The vein is seized with the forceps and a small pointed flap cut with the bistoury in its wall, the adherent base on the side toward the root of the member. As the blood starts, without letting go of the venous flap, held with the forceps in the left hand, the trocar is taken in the right hand, and after letting the serum flow to expel the air, the trocar is inserted in the wound in the vein for about two centimeters. The receptacle is raised 1.50 meter above the level of the bed, which allows the liquid to flow at the rate of 1,500 grams of liquid in twenty-five to thirty minutes. When the injection is completed, an antiseptic compress is all that is necessary, as the same opening in the vein may serve for future injections, only the trocar must be inserted a little deeper in the vein to avoid the clot that has formed. The amount of liquid injected can without inconvenience be as much as 2,000 grams twice a day, until the arterial pressure is entirely restored. The pulse becomes perceptible, the temperature rises in hemorrhages and falls in infections with hyperthermia, and diuresis is established, accompanied by salivary secretion and diarrhea.—*Presse Méd.* from *Gaz. Hebdomad. de Méd. et de Chir.*, Nov. 22, 1896.

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INFORMATION WANTED.

It would greatly facilitate the prompt delivery of the JOURNAL to those members of the ASSOCIATION living in large cities, if they would kindly furnish this office with their street address in those cases where it is omitted from the wrapper of their JOURNAL, as we have been notified by the postmasters of the larger cities that second-class mail matter not having street address, would be placed in the general delivery to await call.

SATURDAY, FEBRUARY 13, 1897.

THE DECENNIAL REPORT ON THE VITAL STATISTICS OF THE REGISTRAR-GENERAL'S OFFICE OF ENGLAND.

The successor of FARR and OGLE as Supeintendent of Statistics, in the Registrar-General's office of England, is Dr. J. F. TATHAM, formerly of the Health Office of Salford. He is the author of the fourth decennial report on the vital statistics of England, being a supplement to the fifty-fifth annual report. That report covers the decennium 1881-1890, and is technically known as "the Registrar-General's Decennial Supplement." This report contains the third English life-table that has been published by that office. The first was drawn up by Dr. FARR, based upon the seventeen years period 1838-1854; the second was constructed by Dr. OGLE for the ten years 1871-1880. The period 1881-1890 has been the basis of Dr. TATHAM'S new life-table, contained in the decennial report recently published. The last report is, like its forerunners, the result of most laborious research and has numerous improvements respecting mortality and its causes.

Regarding the general death-rate of England and Wales, the report shows that the rate has declined from 21.27 per 1,000 in the former decade to 19.8 in the period 1881-1890. The rate for males declined 12.6 per cent., that for females declined 10 per cent. There has been found a decrease of mortality in both sexes and at every age, except at one period, that for males aged 65 to 75 years, the rise for the age period being less than one per cent. In the decennium considered in Dr. TATHAM'S report there were many thousand faulty certificates of death, requiring the sending to medical practitioners of over 22,000 letters for purposes of correction. The life-table of Dr. TATHAM is constructed for both sexes, for each sex, and for every year of age, with comparisons with the two foregoing life-tables of Drs. FARR and OGLE. This table is of sufficient interest to medical examiners for life insurance and to practitioners generally as to call for a partial reproduction of the findings of Dr. TATHAM. In the following brief tabular statement is given the mean after-lifetime, or "expectation of life," for males, at birth and at fifteen other selected age periods, in England and Wales with comparative columns for the corresponding data of the periods studied by Drs. FARR and OGLE:

MEAN AFTER-LIFETIME, OR "EXPECTATION OF LIFE," FOR MALES IN ENGLAND AND WALES.

AGE.	LIFE-TABLE OF DR. FARR. 1838-54	DR. OGLE. 1871-80	DR. TATHAM. 1881-90
At birth	39.91	41.35	43.66
Five years	49.71	50.87	52.75
Ten years	47.05	47.60	49.00
Fifteen years	43.18	43.41	46.47
Twenty years	39.48	39.40	40.27
Twenty-five years	36.16	35.68	36.28
Thirty years	32.76	32.10	32.52
Forty years	26.06	25.30	25.42
Forty-five years	22.76	22.07	22.06
Fifty years	19.54	18.93	18.82
Sixty years	13.53	13.14	12.88
Seventy years	8.45	8.27	8.04
Eighty years	4.93	4.79	4.52
Ninety years	2.84	2.66	2.37
One hundred years	1.68	1.61	1.24

From these figures we learn that the English male infant, of the last decennium, had 2.31 years added to his life-expectancy as compared with his ten-year old brother; and 3.75 years more than his father born in period of Dr. FARR, say from 27 to 44 years before. Improved expectations of life are shown up to 26 years of age; but from 27 to 44 they are less favorable than in the oldest table, and better than that of 1871-1880; at 45 years and over they are lower than in both the earlier tables. The chief improvement, therefore, is noted within the working period of life—namely, from about the twentieth to the sixtieth year. It is, therefore, satisfactory to observe that the average number of years lived between these limits of age by each male born are 20.92, 22.00, and 25.56 years respectively, according to the three successive life tables; an increase in the working period of life has therefore been shown within the last two decennia, amounting to an average of more than a year and a half for each male in the population. Among females the expectation of life at birth, which had been 41.85 years and 44.62 years respectively in the two earlier tables is further increased 47.18 years in the new table. The expectations of life at the several ages up to 54 years are greater by the new life table than by either of its predecessors. At all ages beyond 45 the expectations of life are less by the new table than by

either of the earlier tables. The average number of years lived between the ages of 20 and 60 years by each female born according to the three life tables are respectively 21.65, 23.48 and 25.12 years.

The report shows a heavy sacrifice of life by small-pox, namely, 12,280 deaths in the decade. Of these 2,145 were returned as having been vaccinated, 3,370 unvaccinated, and 6,765 of which the certificates failed to give the requisite information. The much-needed information was lacking in over 50 per cent. of the death certificates—a rather bad showing for the paternally governed "tight little island." An encouraging fact brought out in this report is the conspicuous and progressive reduction which has recently taken place in the death-toll levied by pulmonary phthisis. The life-saving represented by this reduction during 1881–90, as compared with the previous decennium, is equal to 392 lives in each million of the population, and the lives saved are mainly those of young adults, who are economically the most valuable to the State. In the course of the last twenty years the crude mortality from phthisis has decreased by 30 per cent. Among males the rate of decrease has been equal to 25 per cent. and among females to 35 per cent. A very remarkable change in the sex incidence of phthisis has been observed within the last forty years. From the year 1851 to 1865 the phthisis rate was greater amongst males, although the difference gradually diminished as time went on. Since the year 1866, however, the mortality has been uniformly in excess, not amongst females, as formerly, but amongst males; and in the last two decennia (of the forty years) the excess of the male rate over the female rate was greater than had been the excess of the female over the male rate in the first decennium (1851–60). From information obtained since 1890 it appears that this remarkable change in the sex incidence of phthisis is still being continued. The mortality from this disease showed a decline during the recently ended decennium amongst males as well as females at all ages of life.

Scarlet fever, which has been sometimes termed "the English pestilence," has shown a declining annual mortality during the last three decennia. The proportional decline being as 972 to 716 to 334 per million for the periods ending respectively in 1870, 1880 and 1890. It is not easy to ascertain whether this gratifying ebb has been due to a diminished prevalence of the disease or whether the malady has assumed a milder form in recent years. The returns from the fever hospitals, however, would seem to support the latter view. The deaths have been higher among males than females; especially is this true of children under 10 years old. It also appears that the mortality by scarlet fever is less among infants under one year of age than those in their second to fifth years.

A PSYCHOLOGIC STUDY OF THE THREE PROFESSIONS.

Recently some very interesting studies have been made by lawyers, clergymen and physicians, in two of the great metropolitan cities of the country. The object was to ascertain if possible the intellectual status of the different professions, compared with each other. It was assumed that each profession would be found intellectually rising, or perhaps merely holding its own along the levels of general development. Or possibly one profession might be at a lower level of comparative growth or far beyond the others in point of attainment. The data from which such studies could be made must include not only a history of each professional man, but a fair estimate of what he had accomplished in his intellectual life. This was ascertained in the numerous biographies and separate personal studies of professional men. A comparison of these histories would give a general answer to the inquiry. The results so far of these studies are very suggestive. Of the three professions, physicians appear to have made the most progress. Intellectually they are rapidly ascending, and the records of their actual achievements surpass all others. Every year more college trained men are entering the profession, and signs of progress along lines of literature and arts are rapidly increasing. The immense development of scientific research, no doubt has reacted on medicine more than other professions. But beyond this the profession has moved with greater rapidity, following broader lines of inquiry, with less reverence for the teaching of the past. In the studies of physicians in these two cities, a large number have made substantial progress in the discovery of new facts, and the new application of old ones to new conceptions of science. Many of these medical men are scientific students working out and testing new problems of medicine continually.

Next to the physicians come the lawyers, who seem to be making but little progress. Some of these men as judges have given broader interpretations of the law, and some new technical applications to practical life, but the greatest intellectual strain seems to be to adjust the law to the new conditions of life and living. As politicians and legislators, but little new work is accomplished, every thing seems to bend to preserve the harmony of the past and present.

In other circles a slow advance is apparent; in literature and the arts they occupy a prominent place, and in humanitarian circles they have barely kept pace with business men. The heavy weight of prestige and theories of the past outweigh and keep down much of the progress in the present.

The clergymen came last in the list. While intellectually, in general culture and scholastic training, they have probably exceeded both law and medicine, yet in real original work they have fallen back in the

march of progress. Few rise to the levels of the age in their teachings, or cut loose from the past, but like lawyers, spend a great deal of energy to keep in harmony with both present and past. The clergymen in those cities were very active in humanitarian work, but along old lines. They had contributed freely to to the literature of the day, but little or nothing to the new life and new conditions of living. As a class they had not held their own in the march, but had broken up into extremists and doubters. In these two cities are to be found many of the ablest men of the country in the three professions. Yet from records of actual achievement intellectual progress and evolutionary development, medicine far exceeded both law and theology.

While these studies are not complete, and perhaps open to many sources of error and correction, they call attention to possibilities of attainment not often considered. Doubtless there are many towns of the country where the medical men are far back in real attainments, and are exceeded by both lawyers and clergymen. But the fact remains that scientific rational medicine, as a field for new discoveries that will raise the levels of life and living, offers the widest opportunity for intellectual development. Studies of this character are very practical, not only in giving us high points of view from which to estimate the direction of the real progress, but bringing incentives to the individual life of physicians not obtained in other ways.

The sociologic and anthropologic aspect of medical life furnishes many facts, a knowledge of which would be of great value in many ways.

THE MEDICAL ASPECTS OF THE MODERN "SKY SCRAPER."

The semi-revolution in urban architecture of the past few years, to which we owe the lofty structures that make a distant view of even the flattest of our cities picturesque, has a side that perhaps calls for some attention to be given it by the medical profession. The guardians of the public health have a right to investigate and, if needs be, pass judgment on any novelty that may directly or indirectly affect it, and it is quite possible that there exist in these sky-scraping structures, with all their advantages in economy of ground surface, some serious disadvantages that call for our professional consideration. As yet they are not universal even in limited districts, but the tendency is toward their multiplication, and the first natural suggestion is to query what will be the result of so materially affecting the ventilation and sunlighting of our streets when they have become as they may only deep narrow canyons, which are already strongly suggested in some even of the wider streets of our newer cities. A clever writer of fiction has even utilized this suggestion in the title of a novel and his description of the bird's-eye view of the modern town and comparison of it to the bad lands of the West is an apt and striking one. In the narrower streets of the older cities of the Eastern border of our country, where buildings of only ordinary height produce some of the evils spoken of, the modern high structures can only aggravate them, and yet it is there that the craze, as we may call it, is just at present in its most pronounced phase. While in Chicago, where this modern construction can be said to have originated, there is now a restriction as to the height, and the day of the excessive sky scraper may be said to have past, in New York they are reported to be projecting thirty or forty story structures and exceeding the most extravagant ideas of the past. It would seem to be time to call a halt from motives of even ordinary prudence if for nothing else.

The dangers of public health are possibly not limited to the obstruction to the ventilation of the public streets, though that in itself is a sufficiently serious matter. The free sweep of the wind and consequent change of air and sweeping away of impurities is a very important matter in large centers of population and goes far to compensate for many sanitary deficiencies. The high buildings, however, are accused in some quarters, of having positive sanitary disadvantages of their own, entirely independent of their effect on the general health conditions of the streets and the city. A sanitary engineer, speaking it may be a little strongly, has called them "gigantic cupping glasses," sucking up and diffusing impure air and foul odors, and it is, in fact, not difficult to conceive that defects in sewerage, etc., may be amplified and exaggerated by the height of the building, unless special arrangements are made to meet such possibilities. Again, in their present generally isolated condition, standing alone among lower structures, it is claimed by some that the occupants of their upper stories are especially liable to injury from emanations from the chimneys, ventilation flues, etc., of the lower buildings around them. Cases have been reported of serious disease caused in this way, and it would appear to be a matter for consideration, at least by sanitarians, in the case of tall apartment buildings intended for residence purposes.

There is still another question, not strictly a medical one, but one that may involve human life and welfare; that of the durability of these constructions. They are practically frame structures, but the steel frames are almost everywhere concealed by solid masonry, tile and cement. Steel is a perishable material unless absolutely protected from erosion, and engineers have stated that its condition in these structures is one of the most serious questions of the present day. Even if these buildings are no more likely to fall or give way in parts than those of the older styles of construction, their great height makes

the risk more serious. Another matter to be thought of carefully is their possible behavior in case of serious conflagration. While they are themselves, it is to be presumed, comparatively fire-proof, what would be the effect of the intense heat, from fires in adjoining buildings, upon their metallic framework? These are engineering questions more particularly, but they have also, in their way, a sanitary bearing and can be mentioned here.

Tall buildings of the modern type are as yet an experiment, and it is too early to say with assurance whether the predictions of those who condemn them will be fully justified. It is always time, however, to note their possible sanitary defects with a view to obviating or amending them for the better. They certainly offer some problems for the sanitarian.

PRE-ENLISTMENT OF OPINION CONDEMNED.

In a murder case, after stating that, upon the trial, medical experts were examined on either side, and gave their answers to hypothetic questions as prepared and propounded, the court of appeals of New York uses this language: "The usual conflict of opinion occurred, which is constantly seen upon such trials, and which tends not only to bring discredit upon a learned profession, but, more seriously, to embarrass the search after the truth, in which the tribunal is engaged, by confusing and darkening the minds of the jurors with opinions upon the scientific questions before them, which are expressed as previously pledged to either side. The fact that the rule which permits expert testimony in such cases works, in practice, badly for the interests of justice, can not be so much attributable to the inexactness of the science in which the witness is assumed to be skilled as to the preënlistment of his opinion by the party." That the procedure in such respects is defective, the court admits, is also true. However, the issue of sanity having in this case been submitted to the jury, who were to finally determine it upon the evidence and having been determined against the defendant who plead insanity, the court holds, People v. Hoch, decided October 13, 1896, that their determination will not be interfered with where the evidence was in fair conflict, and permitted of opposing inferences. It also holds that it was a competent way to probe the mind of a medical witness, and to test the merits and value of the opinion he had expressed of defendant's insanity on the assumed state of facts, to ask him, on cross-examination, to give his judgment, from his examination under his employment by the district attorney as to whether the defendant was sane or insane while awaiting trial on a previous charge, some years before, the hypothetic question having embraced his conduct while serving sentence. Besides, the court holds that, it having appeared that the witness's examination had not been made while attending the defendant as his physician, but at the special employment of the people, for the purposes of their prosecution, he was not disclosing any information acquired in attending a patient in a professional capacity. Furthermore, while the issue turns upon the prisoner's mental condition at the time of the homicide, whether he was laboring under such a defect of reason as to render him incapable of knowing the nature and quality of the homicidal act, or was incapable of knowing that it was wrong, the judge writing the opinion says that there is no apparent reason, and he is aware of no authority, for holding that, in addition to all the other facts, the jury may not be informed, by one competent to speak, as to the mental condition of the defendant at the time of his trial.

SURGERY OF ONE HUNDRED YEARS AGO.

Some time since, the Editor was very much pleased to obtain a copy of the wonderful history of Surgery of One Hundred Years Ago, by the learned Dr. GEORGE FISCHER, of Hanover, Germany. His great and exhaustive study of the development of modern surgery, and superior opportunities for obtaining unusual information, made the book one of very great interest and led the Editor to write for permission to translate the work for the benefit of the readers of the JOURNAL. Dr. FISCHER in a pleasant letter kindly granted the desired permission.

The work of translation has been committed to Dr. CARL H. VON KLEIN, of Cleveland, Ohio, who has been in ill health since he returned from Europe, but has fairly recovered and is now sojourning in Chicago.

We begin with the table of contents and translator's preface and introductory in this issue and will continue weekly until the entire work is published. Some of the chapters are as interesting as a romance and we advise our readers to preserve every number, as no extras will be printed.

A CANDIDATE FOR MAYOR.

We are informed that the lay Health Commissioner, Hon. WM. R. KERR, is a candidate for Mayor of Chicago. He bases his claims for consideration on the excellent record of the Assistant Commissioner, Dr. FRANK W. REILLY, to whom is due the first-rate administration of the Health Department.

If the affairs of that Department have been conducted with such skill as to entitle any one to consideration as a candidate for mayor, why not choose the actual person who has made the plans and performed the service? On that basis the candidate would justly be Dr. FRANK W. REILLY and not WM. R. KERR.

TO TRY THE SERUM.

The French Government has appointed Dr. YERSIN of Paris, to proceed to India and use his anti-plague serum. The French do not expect Dr. YERSIN to

conduct his investigations by letter. That method is peculiar to Washington. Let us have a Department of Public Health!

CORRESPONDENCE.

The Poor Physician.

NEW YORK, Feb. 1, 1897.

To the Editor:—While we are discussing the question of capital and the farmer, why not touch on the interesting question of the poor physician? His case is truly, if you look at it closely, which nobody seems inclined to do, a very, very lamentable one. Think of this: A man who has made his millions, by fair means or else by hook or by crook, it does not matter, feels that he has done nearly enough for this world and that some of his thoughts and deeds might be now reasonably employed to do something to result in dividends in another world possibly to come. The recipe for the cure of such morbid anxieties is an old and hackneyed one. No necessity for breaking one's head, as he had done before on Wall street matters, or about Standard oil wells in the West. Oh, no; there is a panacea! Let's found a hospital, or if we are very high-toned, let us endow a college. The hospital staff is filled by the founder's beneficiaries, or perhaps such of his friends, especially of such as are willing to contribute more influence and more money for the institution. To the clinics of this hospital only the poor are supposed to go. Such as appear there, and are not poor, are treated also and pay a monthly fee. We may naturally expect that some of the staff physicians, who, be it understood, receive no pay, as they are simply helping in a friendly way the rich man to pay his debt to heaven and his conscience, will divert some of the latter patients to consult him in his own office. But what becomes of the poor physician, the general practitioner of the community, while so much good is being done around him? He has to eke out his existence, support his wife and children, with what these good charitable people have left him. Only some of the very poor are left to him and these he can not, without public condemnation and a kind of dishonor, refuse in case of urgency to treat *gratis pro Deo.* This poor physician is not so perplexed as the rich man may have been, before beginning his great charitable career, as to the means of insuring to himself a livlihood in heaven, but he would be very much pleased if the admirable philanthropy of others allowed him to make one in this valley of tears.

I can not help making here two remarks which seem to me exceedingly curious, and I believe that anybody with a tolerable modicum of humor in him must be struck by their piquancy. First, the anxiety of doing good is sometimes so great that the thing is monstrously overdone. What will you say of a hospital intended for 700 patients that can only recruit 35? But now comes the second point: In order to come as near as possible to the number of patients which their colossal structure requires, they have the unspeakable naïveté to send around inviting the poor physicians, whom they have already despoiled, to help them complete the spoliation by sending to the hospital clinics the few poor patients whom they have left them. The man in the hospital whose specialty it is to care for a certain fraction, or a certain casualty of the human body, wants the poor physician to send him *all those of his patients* (if this way of speaking is not ridiculously grandiloquent) who are affected with the complaint to which he has devoted his genius. Another who watches over a different point makes a similar request; they want their clinics to be well attended and interesting, whatever the poor doctor's dinner may be. For, you see the rich man must read reports which show that his work is prospering on earth, as his spiritual wheat is in heaven.

ALBERT S. ASHMEAD, M.D.

The Roentgen Ray in Ophthalmology.

PHILADELPHIA, PA., Jan. 29, 1897.

To the Editor:—In the issue of the JOURNAL of January 16, the proceedings of the Chicago Academy of Medicine are reported. Dr. Casey A. Wood, in the discussion of Dr. E. H. Lee's paper on "Dermatitis following the Roentgen Ray," is quoted as saying "So far as the diagnostic value of the X rays in ocular diagnosis is concerned the subject may be dismissed in a few words. . . . But it was found that inasmuch as the eyeball is surrounded by a bony casing . . . the experiments were found to be of little value." In experiments made in Chicago to determine the presence and location of a foreign body in the eyeball "the X ray was found to be of little or no value." In Philadelphia our experience has been quite the reverse. Within the past two months, two instances of the detection of steel in the vitreous have been reported in the Transactions of the Ophthalmic Section of the College of Physicians, the first by myself and the second by Dr. G. Oram Ring. Dr. G. E. De Schweinitz has verbally communicated to me the history of the third case in which, after the presence of the foreign body was determined by the X rays, it was extracted by the Hirschberg magnet. Thus it will be seen that the bony walls of the orbit and the coats of the eye are permeable to the rays. By comparison of the shadow of the metal with that of the margin of the malar process of the superior maxillary bone and the knowledge of the relation of the Crooke's tube to the sensitive plate the location of the foreign body can be closely estimated. The three radiographs of the cases above referred to were taken by Dr. Max J. Stern in the laboratory of the Philadelphia Polyclinic. Dr. Wood's hope "that we shall be able to make use of the Roentgen ray for purposes of this sort" has been realized. Very truly

HOWARD F. HANSELL, M.D.

Blindness and Quinin.

COLUMBUS, OHIO, Feb. 2, 1897.

To the Editor:—In your issue of Nov. 7, 1896, Dr. H. B. Ellis, of Los Angeles, Cal., reports a case of total blindness, "possibly due to an overdose of quinin." I have read his report with interest, although I can not but regard the quinin as a very improbable factor in the production of the blindness.

The report, however, reminds me of a case which occurred many years ago in the practice of my preceptor, Dr. J. C. Reeve, of Dayton, Ohio. A young man came to the office complaining of symptoms which lead to a diagnosis of malaria. A prescription, containing quinin as the chief ingredient, was given him. A few hours later he reported that he had become suddenly and entirely deaf. This deafness was absolute and permanent. He had, however, not taken a single dose of his medicine. Had he taken the quinin I have no doubt the case would have gone on record as an undeniable one of permanent deafness produced by the administration of quinin.

There are so many things happening in this busy world that many events which seem to be sequences are really only co-incidences, and I think the blindness in the case reported was of this nature.

J. F. BALDWIN, M.D.

A Case of Temporary Amblyopia from Eucain.

GALESBURG, ILL., Feb. 6, 1897.

To the Editor:—The new succedaneum for cocain—eucain—has, I believe proved so useful and so nearly free from danger that its continued employment is not a matter for doubt. I have frequently used it in cases where its points of difference from cocain have seemed to indicate its employment in preference to that drug, and I have often been struck, in such cases, by its excellences.

Recently, however, there fell to me an experience of a kind to teach us that eucain certainly has its dangers. The case was

that of a man, a physician, aged 32, who came to me with a moderately large hypertrophy of the anterior extremity of the right inferior turbinated bone. Ordinarily, before applying galvanocautery to the turbinated bones, I produce anesthesia with cocain. In this case, however, from the fact that the hypertrophy was seated so far forward, I did not think it necessary to produce the shrinking of tissue that follows the use of cocain, and hence merely secured anesthesia by means of eucain. The strength of the solution I used was 5 per cent.

Immediately after the cauterization, the patient complained that his sight was growing dim, and a few minutes later, he said that it had entirely left him. There were no stongly marked constitutional effects, though the pulse was rather rapid and the patient seemed talkative and a little incoherent. The amblyopia was of exceedingly short duration, having almost entirely disappeared at the end of four hours. Neither while it continued nor afterward were any changes perceptible by the ophthalmoscope. The return of vision has been perfect and permanent.

I have read of at least one case of amblyopia from cocain, but as yet no other case from eucain has come to my notice.

Yours, etc., THOS. H. SHASTID, M.D.

A "Mill" Graduate in Indiana.

PERU, IND., Feb. 8, 1897.

To the Editor:—I see in the JOURNAL of February 6, a reference to the Illinois Health University, now Independent Medical College, of which one J. Armstrong is president, secretary, treasurer, etc. We have had here a little experience with one or more of his graduates, one Dr. Elmor (?) who struck our town last summer, with long hair, a good supply of cheek, but little money and glowing advertisements, prepared as he thought to bluff everything in sight; but for once he overlooked his hand. We made him lie down, shut up, and get out, as we have all other advertising quacks of similar qualifications, coming to our town. If you will send J. Armstrong and his college down to Peru, we will turn his college into a hospital and make him the leading patient.

My idea about his college is to suppress his graduates, and that can be done in almost every State in the Union with the now existing laws. Indiana has a very weak medical law; but we find that a weak law strongly used is better than a strong law weakly used. Now if the profession will go to work and enforce the different laws effectually against all such quacks and graduates as of the Illinois Health University or Independent Medical College, in two years time there will be no such institutions. One thing is sure, such rot does no go in our section.

J. O. MALSBURY, M.D.

The Journal Gives Post-Graduate Instruction.

LEOMINSTER, MASS., Feb. 3, 1897.

To the Editor:—Let me thank you for calling my attention to the JOURNAL. I received my medical education forty years ago and it was an old garment that fitted nothing in the earth beneath or the heavens above, so I had decided to take it to some post-graduate school for reconstruction, when the JOURNAL came with its wealth of knowledge, up to date and exhaustive, yet within the limits that any busy practitioner could compass, and I soon made the discovery that a reader of the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION is receiving a post-graduate course in his own study.

Yours truly, C. A. WHEELER, M.D.

PUBLIC HEALTH.

The Epidemic History of the Sandwich Islands.—The *Medical Examiner* has compiled the following statistics regarding those islands: Some time ago I came across a rather rare epitome of history of the Sandwich Islands. In connection with our line of business, I noticed that in 1805 there was an epidemic of cholera, which swept off half the inhabitants of Hawaii. There was no census between 1836 and 1850, but the decrease of population in that period was very rapid. In 1848 the measles were introduced from California, and spread through the group—10 per cent. of the population died. In 1853 there was an epidemic of smallpox. Census taken about that time gave a population of 73,137—a decrease of 11,027 in three years. In 1853 leprosy was first found in the islands; in the year 1864 leprosy had begun to spread to an alarming extent. In 1865 an Act of Isolation was passed; a peninsula on the north side of Molokai was selected for the purpose of isolation. In 1872 smallpox again appeared, but was easily suppressed. In 1881 smallpox came in from China, but was confined to the Island of Honolulu. Total population in 1890 was 99,990.

Valid Garbage Ordinances.—No argument is needed, says the appellate division of the supreme court of New York, to show that garbage in a decayed or decaying condition is a substance deleterious to health, the keeping of which may properly be prohibited by a municipality in the exercise of the police power. And it holds reasonable and valid, in Town of Newtown v. Lyons, Dec. 22, 1896, an ordinance which forbids any person from having or keeping at any place within the town any garbage or refuse vegetable or animal matter in a decayed or decaying condition, and prohibits boiling or cooking it at any place within the town in any open vat, kettle or caldron, or in any manner so as to permit the vapors or exhalations from such boiling or cooking to escape into the surrounding air. But a reasonable construction, it goes on to state, requires it to hold that a cooking vessel shut into a closed building would not be "an open vat, kettle, or caldron," within the meaning of the ordinance.

Public Health in Michigan, January, 1897.—For January, compared with the preceding month, pneumonia increased in area of prevalence. Compared with the average for January in the eleven years, 1886–1896, erysipelas, consumption, diarrhea and pneumonia were less prevalent. Including reports by regular observers and others, consumption was reported present in Michigan in the month of January, 1897, at 209 places; diphtheria at 94 places; measles at 77 places; scarlet fever at 63 places; typhoid fever at 42 places and whooping cough at 37 places. Reports from all sources show consumption reported at 7 places more; diphtheria at 9 places less; measles at 37 places more; scarlet fever at 22 places less; typhoid fever at 29 places less, and whooping cough at 4 places more in the month of January, 1897, than in the preceding month.

Contagious Period of Whooping Cough.—Dr. Weil of Lyons asserted in 1894 that whooping cough is not contagious during the period of paroxysms nor during its decline, but only in the earliest stages, when it is still unsuspected unless the child is known to have been exposed. He now confirms his revolutionary statement by an imposing array of statistics, collected in his hospital experience, where 865 child patients in the various wards were in close contact with fifty-nine cases of whooping cough in the paroxysmal period, without a single case of contagion occurring. Thirty little patients in the most intense stage of whooping cough, but convalescent from other diseases were accustomed to play among the other convalescents (195 between 2 and 5 who had never had the whooping cough), without the appearance of a single new case. Léon has recently published an observation of the contagiousness of the disease in its catarrhal, bronchial stage. The prophylaxis of the disease, therefore, assumes a new phase; the prompt isolation of every child at the first appearance of a cold during an epidemic of whooping cough, and the inutility of further isolation when the paroxysms have made their appearance. According to Roger, the incubating period is six to seven days, and not until this time has elapsed without the manifestation

of any of the specific symptoms of the disease, should the child with a simple cold be allowed to mingle with others, when there is reason to suspect that he has been exposed to whooping cough.—*Bulletin Méd.*, January 10.

Low Mortalities in New York State.—An interesting account of the recent death rate in that State is given in the *Bulletin* of the New York State Board of Health for November. Ten large cities, with a population ranging from 36,000 to 1,995,000, present for the month of November an annual average death rate of 16 per 1,000 inhabitants. The small cities and rural sections present a rate of 13.5 per 1,000; and the State at large 14.75. Of these ten cities, Buffalo with a population of 350,000 had the lowest rate, 10.6; Troy, having 65,000 population, the highest rate, 20.5. The combined cities of New York and Brooklyn, with 3,095,000, had 15.9 per 1,000. Among the ten cities, also, are Rochester with a rate of 12.6; Syracuse with 14.2, and Yonkers, 14.7. The aggregate population of the ten cities is very close to 4,000,000. The number of deaths reported for the month is 7,888, which represents a death rate of 14.75 per 1,000 living; this is the lowest death rate for years. Compared with the preceding month, in which the mortality was unusually small, the number of deaths is less by 800; there were 500 fewer than were reported in November, 1895. November is uniformly the month of lowest mortality in the year in this State; the average daily mortality for the ten preceding months of this year has been 340, while that of this month was 265, and for the past ten years there has been an average daily mortality during November of 280, a death rate of 15.75. The infant mortality is unusually low, 27.5 per cent. of the total deaths having occurred under the age of 5 years. The same is true of the zymotic mortality, which caused 11.3 per cent. of the total deaths in the preceding month, and likewise in the month of November, 1895; 13.0 per cent. of the deaths was from these causes. From all the diseases of this class the deaths were less than they were last month except diphtheria, which, however, has caused fewer deaths than during the corresponding period of last year.

Admissibility of Opinion Evidence of Exposure to Disease.—Under the interpretation which has been placed upon the general New York statute relating to local boards of health, the mere possibility that a person may have been exposed to a contagious or infectious disease is not sufficient ground for requiring his isolation, but he must have been exposed to it, and the conditions actually existed for a communication of the contagion in order to bring into operation the power to isolate. It may be common knowledge that one coming in personal contact with another affected with a contagious disease or occupying the same room with him is exposed to it. But, beyond that, whether, in a particular case, conditions so exist for the communication of the contagion to a person as to render him exposed to the disease, the appellate division of the supreme court of New York says, may be a question of medical science and skill. So it holds, Dec. 15, 1896, in Smith v. Emery, an action against the Acting Commissioner of Health of the city of Brooklyn for false imprisonment, that it was error to exclude evidence of how many cases of smallpox there were at a certain time in a certain district and their location, as well as to exclude the testimony of a member of the medical profession as to the infectious and contagious character of smallpox, how the contagion of the disease is conveyed, that it is conveyed by the air, absorbed in the respiratory tract, conveyed in clothing and utensils, and by atmospheric contagion, and how long the poison of the disease retains its vitality; this evidence being offered with a view to a hypothetic question to the witness, calling for his opinion whether the plaintiff was exposed to smallpox, which it is also held was erroneously excluded. On these grounds, the judgment which the plaintiff obtained is reversed and a new trial ordered. But Mr. Justice Bartlett, while concurring in the result, says he entertains considerable doubt as to the propriety of permitting hypothetic questions in such a case, which call out opinion evidence to the effect that a given series of events constitutes exposure to a disease.

The Imperial Commission on Vaccination for Germany.—Another important recommendation of bovine vaccine for official purposes has been put upon the sanitary records of Europe. The Prussian government recently decided to investigate certain questions connected with vaccination, and for that purpose appointed a commission, presided over by Dr. Schmidtmann of the Government Medical Department, and composed of bacteriologists such as Professor Koch, Professor Pfeiffer and Dr. Frosch of the Berlin Royal Institution for infectious diseases, together with practical vaccinators. The commission was consulted as to the possibility of ascertaining without bacteriologic examination whether a sample of lymph is in good condition or not, also whether there is any ground for the belief that vaccination wounds are specially liable to erysipelas. The report of the commission has just now appeared and supplies information on the following subjects: Number and species of bacteria found in the lymph, difference between the bacteria found in animal and in human lymph, connection between the symptoms of reaction following vaccination and the concentration of the lymph, the method followed by the vaccinator, and the idiosyncrasy of the person vaccinated. The commission came to the conclusion that there is an essential connection between the bacteria of the lymph and the inflammation of the tissue at the place of insertion; erysipelas and gangrene are due to secondary infection and are always caused by want of care either on the part of the vaccinator or in the subsequent management of the case. It is impossible for lymph to be absolutely free from all bacteria. The best lymph is calf lymph, in the collection of which no blood has been drawn and which has been treated by subsidence, centrifugation and solution. Such lymph is the least likely of any to induce excessive reaction.

The Secretary of State for Health.—The *Public Health Journal*, December, admonishes us that the health of the nation and the saving of human life is paramount to all other questions, and deserves a national consideration. No foe of the government is so widespread in its effects as that which attacks a nation's health, permeating all parts of the social and political structure. Its dangers can not be exaggerated. Empires have fallen because of neglected moral physical laws of health. Sickness brings weakness and poverty. Health develops strength and wealth. Therefore public health is of great commercial value. That which obstructs business and sacrifices lives that are valuable to the State is worthy of its earnest attention. Epidemics, though confined to our section of the country, affect the life and finance of the whole nation. Millions are given for the advancement of commerce, thousands spent in the interest of agriculture, and they are deemed worthy a place in the councils of the nation, while that which paralyzes trade, wastes strength, causes loss of labor and its earnings is neglected. In this enlightened land there are annually sacrificed to preventable disease 250,000 human beings. War, with all its dread calamities and horrors, does not bring such desolation, suffering and despair as disease. And yet millions annually flow from the treasury for the maintenance of army and navy, and two cabinet officers faithfully watch their interests. The time for temporizing has passed, makeshift ways must give place to the practical and scientific. The needs of the hour demand a concert of action against disease, with a well-equipped army of assistants, and a master mind at Washington to guide the attack. As we near the close of the nineteenth century let the united medical profession, with a full realization of its necessity, by a power that shall place in the

national council one whose scientific eye shall ever watch for threatened danger. Let us have a Minister of Health, and set an example to the great nations of the civilized world in this important direction.

How Dr. Kinyoun Escaped Typhoid Fever.—In the January *Bulletin* of the North Carolina Board of Health appears a report of a Health Conference, as it is called, held at Charlotte. Dr. Kinyoun participated in the discussion of milk-borne diseases. He stated that he had for several years adopted the plan of sterilizing or Pasteurizing all the milk used in his own home. His family had been obtaining milk from a dairyman living outside of Washington. "One morning he was missing. We did not think anything of that, but day after day passed, and upon inquiry of the man delivering the milk he said he was sick at home with typhoid fever. 'How long has he had it?' 'He was taken sick about ten days ago. His wife also has typhoid fever.' I asked, 'has his wife been away from home?' 'No; she has not been off the place,' admitting that she had not gotten typhoid fever from somewhere else. Immediately the question was asked in our family: 'Shall we abandon the milkman and get milk from another place?' I said, 'No; we have been exposed to the infection for three weeks and have no typhoid fever.' Upon inquiry, I found upon this milkman's route there were five cases of typhoid fever and it was traced to the milk. Herein is this apparatus for Pasteurizing extremely simple, it does not require an extraordinary knowledge to handle it, an intelligent cook can fill an ordinary bottle with milk and do it as well as yourself. I believe if I had not used this precaution, described in your hearing, some of my family would have had typhoid fever. I have advised all my friends to use some such apparatus. The beauty of it is this: It does not change the quality of the milk; very slightly if any at all. The digestive property of the milk taken from the cow remains the same, whereas in boiled milk it is exceedingly changed. It has another beauty. It removes the animal odor from about it, which is very disagreeable to many persons."

"Return Cases" of Scarlet Fever. The Mortality by Measles.—Dr. Thorne Thorne, of the Local Government Board, gives an explanation of the term "return cases," as applied to infective diseases, that is not infrequently met with in English journals and reports, and that is comparatively unknown to Americans. According to his explanation the use of the term is at present restricted to scarlet fever. *Pari passu* with the growing practice in recent years of isolating scarlet fever patients in hospitals, this disease has, in not a few instances, shown a tendency to reappear in households shortly after the return thereto of persons who had resided for some time in hospital as scarlet fever patients, and the term "return cases" has come to be applied to such instances of secondary infection. The hospital belonging jointly to the Bromley and Beckenham district councils seems to have come under the notice of the board in this connection during 1894, and the late Mr. T. W. Thompson was instructed to confer with the representatives of the combined hospital authorities on the subject. The circumstances are clearly set out in Mr. Thompson's report, which shows that a certain number of "return cases" appear to have been caused in the way above indicated as a result of the operations of this hospital; but in consequence chiefly of the smallness of the figures concerned Mr. Thompson did not profess to have discovered any definite solution of the matter under investigation. The report, however, which is included in Dr. Thorne Thorne's appendix is full of interest to those who, as practical sanitarians, have to deal from time to time with return cases of scarlet fever, for it will readily be understood that these unfortunate accidents interpose difficulties of no light kind in the way of those whose duty it is to secure the prompt isolation of first cases of infectious disease. Dr. Theodore Thomson contributes a valuable report, which is included in the same appendix, on the subject of the prevalence and fatality of measles. It is quite clear to sanitarians that the mortality from most of the diseases of the so-called zymotic class has been slowly but steadily decreasing in recent years. Measles forms an important exception. This disease kills annually, on the average, nearly thirteen thousand persons, mostly, if not exclusively, young children, and it unfortunately shows a tendency to increase. Even in the quinquennium 1890-94, the death rate from measles was higher than that from any other zymotic disease except whooping cough and diarrhea. The mortality from measles is always much greater in towns than in country places, the disease being more frequently epidemic in towns where the opportunities for direct infection from person to person, in schools and elsewhere, are unusually frequent.

Although it is well known that uncomplicated measles is a comparatively mild disease, as it occurs generally among the children of well-to-do persons, the case is far otherwise among the poor. The importance to sanitary authorities of being able to devise measures for the control of measles among the latter class on its first appearance in their districts is apparent on consideration of the tender age at which measles is mostly fatal, namely, during the second year of life. "If," says Dr. Thorne Thorne, "measles, which formerly was epidemic every other year, be so far discouraged by preventive measures as to acquire epidemicity only every fourth year, it is clear that a larger number of susceptible children will, when the epidemic arrives, have reached ages at which the disease is little fatal, and that in this way many lives will be saved which formerly were sacrificed to measles." In discussing the measures likely to prove serviceable in the face of an epidemic of measles, Dr. Thorne Thorne naturally turns to notification and endeavors to learn how far this expedient has been adopted by the sanitary authorities of the country and with what results. Here, it must be confessed, the returns are disappointing. The notification of this disease has not been required under the Act by any considerable number of authorities, and it appears from the report to be questionable whether any great amount of good has been obtained in those cases where the disease has been scheduled. "Unfortunately, it is impossible," says Dr. Thorne Thorne, "to point to any one district as having systematically adopted all practicable measures of precaution for the prevention of measles; but the facts recorded go to indicate that in so far as in particular districts the difficulties of the problem have been realized . . by so far have the results obtained been found encouraging to the sanitary authorities concerned."

For the facts and deductions in the above statements, we are indebted to the review of the last Annual Report of Dr. Thorne Thorne, medical officer of the Local Government Board of Great Britain, in the London *Lancet*.

Health Report.—The following reports of mortality from smallpox, cholera, yellow fever and plague have been received in the office of the Marine Hospital Bureau of the Treasury Department:

SMALLPOX—FOREIGN.

Bombay, December 22 to 29, 2 deaths.
Cairo, November 12 to 18, 1 death.
Cardenas, January 9 to 16, 26 cases, 5 deaths.
Genoa, January 9 to 16, 4 cases.
Gibraltar, January 3 to 10, 7 cases.
Madrid, January 6 to 13, 20 deaths.
Messina, January 9 to 16, 1 case.
Moscow, January 2 to 9, 7 cases, 1 death.
Nogales, January 16 to 23, 1 case.
Odessa, January 2 to 9, 25 cases, 10 deaths.
Osaka and Hioga, December 26 to January 2, 67 cases, 39 deaths.
St. Petersburg, January 2 to 9, 3 cases, 2 deaths.
Warsaw, January 2 to 9, 12 deaths.

CHOLERA.

Bombay, December 22 to 29, 1 death.
Calcutta, December 12 to 19, 30 deaths.
Colombo, December 12 to 15, 30 deaths.
Singapore, November 1 to 30, 12 deaths.

YELLOW FEVER.

Cardenas, January 9 to 16, 19 cases, 1 death.
Matanzas, January 6 to 20, 9 deaths.

PLAGUE.

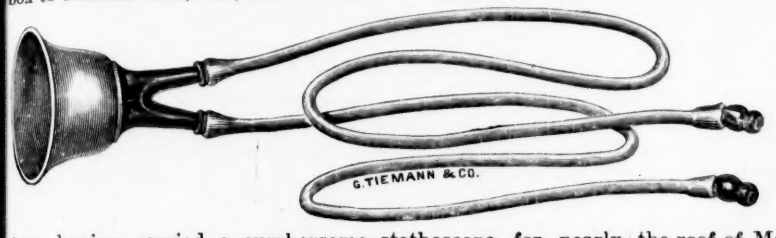
Bombay, December 22 to 29, 390 deaths.

NEW INSTRUMENTS.

A NEW STETHOSCOPE.

PARIS, Ill., Jan. 25, 1897.

To the Editor:—Being unable to find a stethoscope that was efficient, simple and portable, I devised the one here represented, compared it with Camman's different styles, the Denison and the phonendoscope, and found it the best instrument for general use. It is easily carried in the pocket, in a tight box to exclude dust, etc., which is much in its favor, as I know

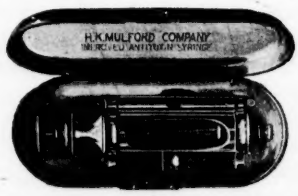


from having carried a cumbersome stethoscope for nearly twenty years. My last purchase was a phonendoscope, which transmits sounds perfectly, but does not locate them satisfactorily, besides being uncomfortable to the patient and too heavy to carry in the pocket. The above instrument is made by Geo. Tiemann & Co., New York city. If the ear pieces do not fit, they will either admit external sounds or cause roaring.

Respectfully, W. H. TENBROECK, M.D.

ANTITOXIN SYRINGE.

Mulford's 5 c.c. antitoxin syringe is especially designed to inject concentrated antitoxin. The syringe case is solid metal, nickel plated, provided with a movable rack, thus permitting



of thorough sterilization. The plunger is expanded by a new and highly improved method. By simply turning the piston head to the right the packing is easily adjusted at any point in the barrel.

NECROLOGY.

PERRY H. MILLARD, M.D., of St. Paul, Minn., dean of the College of Medicine and Surgery, at the State University, died at Johns Hopkins Hospital in Baltimore, February 1. He was born in the State of New York in 1848 and was graduated from the Ogdensburg Educational Institute. He was graduated in medicine from Rush Medical College in 1872. He then spent several years in the practice of his profession at Stillwater, Minn., afterward removing to St. Paul. He was an aggressive advocate of higher medical education and it was mainly through his efforts that the present laws regulating the practice of medicine in Minnesota, were enacted. He rendered the ASSOCIATION valuable services while a member of the Board of Trustees. Following are resolutions passed by the College Faculty:

The Faculty of the College of Medicine and Surgery of the University of Minnesota record with sincere regret the untimely death of its dean, Dr. Perry H. Millard. In his death, a loss is sustained—not by this Faculty alone, but by the medical profession of the State of Minnesota and by the cause of medical education throughout the country. He was a self-made man—of large natural resources, of indomitable energy and perseverance, of unswerving devotion to his chosen purposes. And those purposes had, at heart, the good of his profession. To that profession he devoted twenty-five years of his life, achieving an enviable success in its service. He filled many positions of trust with faithfulness and places of honor with modesty. His services to the State of Minnesota are written upon her statute-books and in the history of her medical institutions. He was the author and inspirer of the laws which have governed the practice of medicine in the State and, particularly, of that progressive measure known as the Minnesota Medical Practice Act, which has become the type of legislation for over half the States of the Union. He was one of the most active organizers and promoters of the American Medical College Association, a body which has done much to elevate the average standard of medical teaching in this country. His most signal service was in the projection, organization and development of the Department of Medicine of the University of Minnesota. It was in his brain that this institution, which has taken rank among the foremost professional schools of America, first took shape. It was his influence which secured the surrender of the charters of those private colleges which united in its establishment. It was largely through his unceasing labors and his persistent enthusiasm that it was placed upon the University campus beneath the roof of Medical Hall. It was his first ambition, his daily duty, his well justified pride to forward its interests throughout the years of his fatherhood of its Faculty. He passed from its immediate service under the inevitable compulsion of a death-warning he had too long refused to heed, to a death-summons which commands the sorrow of his associates and inspires this memorial "to the duty he has wrought."

CYRUS NORTHROP, LL.D. Pres't.
JOHN F. FULTON, M.D.
PARKS RITCHIE, M.D.
R. O. BEARD, M.D.
A. W. ABBOTT, M.D.
C. L. GREENE, M.D.
H. M. BRACKEN, M.D. Committee.

RICHARD JOHN HALL, M.D., of New York City, died January 24, at Santa Barbara, Cal., after an operation for appendicitis. He was a son of the Rev. Dr. John Hall of that city, and was born in Armagh, Ireland, forty-one years ago. He was graduated in arts, from Princeton College in 1875, and three years later from the New York College of Physicians and Surgeons. He took a surgical course of instruction in Vienna, and upon his return to New York joined the House Staff of Roosevelt Hospital, and became subsequently an associate of the late Prof. Henry B. Sands of that city. In 1886 he was appointed lecturer upon the principles of surgery, at his alma mater, and so continued until near 1888, when to recuperate his health, he went to Santa Barbara. While there, he established a hospital. He leaves a widow and two daughters. His brother Rev. Thomas J. Hall of Chicago had summoned his father to his own bedside just before the news of the death of Dr. Hall had arrived, and he is regarded as being still in a precarious state of health; the mother also is grief stricken and is shattered in health.

SIR THOMAS SPENCER WELLS.—The death of Sir Thomas Spencer Wells is announced as having occurred at Antibes, in the south of France. He was born in 1818 and educated at Trinity College, Dublin. He was a Fellow of the Royal Medical and Chirurgical Society, and surgeon to her Majesty's household, and at the third centenary of the University of Leyden and the eighth of the University of Bologna he received the degree of an honorary M.D. Queen Victoria in April, 1883, conferred upon him a baronetcy in acknowledgment "of the distinguished services which he has rendered to the medical profession and to humanity." He was the author of several important surgical works, on those branches of operative surgery to which he specially devoted himself, and was widely quoted as an authority on this continent.

CHARLES A. STARK, M.D., died at Marshfield, Mass., January 22, aged 35 years. Dr. Stark was a native of Manchester, and a graduate of the Dartmouth Medical School. He was for a time connected with the staff of the New Hampshire Insane Asylum, and then went south, practising his profession in Louisiana and holding the post of division surgeon on the Illi-

nois Central Railroad. In 1889 he was compelled by failing health to return to the north and in the following year established himself at Marshfield, where he acquired an excellent practice. He only gave up active practice when the progress of his last illness enforced retirement. He married, in 1886, Miss Harriet O. Walker, of Chelsea, who with a son, survives him. He was a great-great-grandson of General John Stark. Dr. Stark was a member of the Massachusetts and New Hampshire Medical Societies.

LAWRENCE J. MCNAMARA, M.D., Bellevue College, New York, 1882, aged 37 years, died in New York City January 28, leaving a wife and five children. He was an "original" member of the New York County Medical Association and a member of the New York Pathological Society as well as Visiting Physician to the Hospital for Nervous Diseases. He had also served on the House Staff of St. Vincent's Hospital before entering upon general practice, which subsequently became both large and profitable.

FRANCIS MORELAND LORETTE, M.D., College Physicians and Surgeons, New York, 1843, born in London, died at his home in Brooklyn, N. Y. January 29, aged 84 years. He retired from practice about ten years ago. Three children survive him.

WM. S. ROLAND, M.D., University of Pennsylvania, 1835, of York, Pa., died January 23.

FREDERICK M. TURNBULL, M.D., Jefferson Medical College, 1877, died in Boston January 16 after a long illness.

OLIVE DEWEY ALDRICH, M.D., Woman's Medical College, Pennsylvania, 1874, died of pneumonia, January 11, at her home in Philadelphia.

Dr. F. F. MORAWITZ of St. Petersburg, famous as an entomologist. His collection of insects is considered the most complete in the world.——Dr. J. H. Thiry, professor of surgical pathology at Brussels.——Professor Plucker of Liége, president of the Société de Médico-Chirurgie, in his 46th year.——Dr. J. M. Carminhoa, professor of medical botany and zoology at Rio Janeiro.

ASSOCIATION NEWS.

Semi-Centennial Meeting of the American Medical Association.—The Committee of Arrangements for the Semi-Centennial Meeting of the AMERICAN MEDICAL ASSOCIATION, to be held in Philadelphia June 1, 2, 3 and 4, 1897, desire to announce that in addition to the regular order of exercises during the meeting of the ASSOCIATION there will be for a week preceding and a week succeeding the ASSOCIATION Meeting, special courses and clinics given in the various large teaching institutions of Philadelphia, without cost to visiting physicians. This course has been organized in response to a generally expressed wish that opportunities might be given to visiting physicians of taking clinical courses, for it is believed that many physicians from distant points would be glad to spend a week or two over and above the time occupied by the Meeting, in this manner. A schedule and roster describing the course in detail will be published shortly before the Meeting. Further information may be obtained from Dr. Edward Martin, 415 S. 15th St., Philadelphia, the Chairman of the Committee on Hospital Courses.

H. A. HARE, M.D.,
Chairman of the Committee of Arrangements.

SOCIETY NEWS.

The British Medical Association.—The *Montreal Medical Journal* for January has the following items of news regarding the coming meeting of that Association. The president-elect of the Association, Dr. T. G. Roddick of Montreal, has departed for England, where he will devote some weeks to the business of the Association. "His visit seems to have been very well timed; not only will he be able to post the officials of the Association with all necessary information concerning what has been done in Canada, but he will, we trust, be able by personal interviews to secure the attendance and active coöperation of many who are first and foremost in the profession." As an indication of the hearty coöperation of all parts of the Dominion, we are pleased to note that the following leaders of the profession have accepted positions upon the Executive Committee and have offered their coöperation: Dr. W. Tobin, president of Halifax Branch British Medical Association; Dr. G. L. Milne, president of British Columbia British Medical Association; Dr. C. R. Church, president of Ottawa Branch British Medical Association; Dr. A. Catellier, president of Quebec Branch British Medical Association; Dr. J. A. Duncan, president of British Columbia Medical Council; Dr. J. McLeod, president of P. E. I. Medical Board; Dr. V. H. Moore, president of Canadian Medical Association; Dr. D. W. Daniel, president of Maratime Medical Association; Dr. Coventry, president of Ontario Medical Association; Dr. H. H. Chown, president of Manitoba Medical Association; Dr.. J. P. McDonald, president of Nova Scotia Medical Society. There are yet more names to be added to the Committee. In the absence of any official year-book of the profession of the Dominion, the secretaries have found some difficulty in determining the present holders of official posts in connection with the leading medical bodies of the Dominion, and as consequence the invitations to join the Executive Committee have been delayed.

Iowa Central State Medical Society.—The meeting of this society was held Dec. 16, 1896. Drs. Cora Williams, Merrill and E. M. Singleton were elected members. Upon balloting, Dr. W. S. Devine, Marshalltown, was elected president; Dr. W. E. Whitney, Eldora, vice-president; Dr. F. S. Smith, Nevada, second vice-president; Dr. C. C. Cottle, Marshalltown, secretary and treasurer; Drs. F. H. Boucher, H. L. Getz, G. W. Dobson, trustees. Committee, Drs. W. S. Devine, Marshalltown, W. E. Whitney, Eldora, F. S. Smith, Nevada. Dr. H. L. Getz, in a timely speech, introduced Dr. W. S. Devine to the society as the in-coming chairman. Dr. Devine responded in a few words and was installed as president. First paper by Dr. Singleton on the "Superiority of Inunctions in the Treatment of Syphilis." Discussed by Drs. Kierulff, C. C. Cottle, F. S. Smith, G. W. Dobson and H. L. Getz. Second paper by Dr. B. F. Kierulff on "Progressive Myopia in School Children." Paper discussed at length by Drs. Cottle, Singleton, Dobson, Getz, Smith and Devine. Two cases (recovery in both) presented by Dr. H. L. Getz. First case hysterectomy and ovariotomy; second case, removal of appendix and double ovariotomy. Discussed by members. Committee on revising Constitution made final report as follows: We, your committee on revising Constitution recommend the following: 1, that the date of regular meeting shall be on the second Tuesday of June and December. 2. That all of the words in Section 1, Article 5, previous to the word "present" be stricken out, leaving it to stand as follows: This Constitution and the following By-Laws may be amended by an affirmative vote of two-thirds of those present.

Report accepted and on motion the amendments were carried. On motion the society adjourned.

BOOK NOTICES.

Twentieth Century Practice. An International Encyclopedia of Modern Medical Science. By Leading Authorities of Europe and America. Edited by THOMAS L. STEDMAN, M.D., New York City. In Twenty Volumes. Volume X. "Diseases of the Nervous System," pp. 859. New York: William Wood & Company. 1897.

The manuscript for Volume IX of this series not being entirely finished, Volume X has been published in its place, and the pub-

lishers announce that Volume IX will be issued in April, 1897.

The volume begins with diseases of the brain properly so called, and is then followed by chapters on intra-cranial hemorrhage, tumors of the brain, diseases of the meninges, hysteria, epilepsy, the spasmodic neuroses, neurasthenia, the disorders of speech and the disorders of sleep. The contributors to this volume are Sanger Brown, M.D., Chicago; Joseph Collins, M.D., New York; Chas. L. Dana, M.D., New York; Chas. Samson Féré, M.D., Paris, France; Howell T. Pershing, M.D., Denver; and Bernard Sachs, M.D., of New York.

The great changes that have been made in works on the nervous system in the last few years are due to more correct notions of the anatomy and physiology of the nervous system.

"The birth of the neuron theory," says Dr. Collins, "has been accompanied by a flood of light in the interpretation, not only of the physiology of the brain, but of the pathology as well. . . . . We are nearing the time, if indeed it be not already at hand, when the nosology of disease shall be built upon or in unison with the neuron theory, and already some workers in the science of neurology have heralded the advent of such classification."

In the preparation of this volume such has been the deep sense of responsibility of the authors that "current medical literature and not previous treatises, has been the source where information has been sought."

The work then will be seen to embody the fruits of the latest teachings, and those wishing to keep *au courant* with neurologic literature should possess this volume.

Report on America's Relief Expedition to Asia Minor Under the Red Cross. By CLARA BARTON. Paper, pp. 143, illustrated. Washington. 1896. (Price thirty cents.)

This report is published for the benefit of the Armenian sufferers, and is an interesting narrative of the expedition. The illustrations are numerous and instructive.

Miss Barton and her corps have placed here an enduring record of her latest and best work in the cause of humanity. Nothing is set down in malice, nor are the instances of misgovernment by the "unspeakable Turk" shielded. The constant courtesy and respectful treatment of the Turkish Government is acknowledged.

The report is a plain unvarnished tale of human misery and suffering, phenomenal cruelty of the Mussulman, and heroic efforts of relief by a philanthropic society.

MISCELLANY.

Mirror-Writing.—Professor Richet states in the *Progrès Méd.* that the great genius, Leonardo da Vinci, was accustomed to write in this way. His notes and letters were absolutely illegible until they were held before a mirror.

New York Polyclinic.—The trustees of the New York Polyclinic Medical School and Hospital have decided to rebuild on the site of their former building, Nos. 214 to 218 East Thirty-fourth Street. The work will be begun immediately.

The Mignonette as a Vermifuge.—The *Journal de Médecine de Paris* for October 4, states that in Russia the mignonette (reseda luteola) has long been held in great popular esteem as a remedy against tapeworm, and tells of a woman who, fasting, took a very strong decoction of the flowers and then a large dose of castor oil, and three hours afterward voided the tapeworm in the form of a ball.—*New York Medical Journal.*

The Earliest Men.—Dr. Ranke, of the German Anthropological Society, recently undertook to describe the physical characteristics of the earliest men, as ascertained from the examination of prehistoric graves. They were of a yellowish color, he said, and had coarse hair. Their heads were peculiarly shaped, the part of the skull which contains the brain being large relatively to the face, while the face was small. They had other peculiarities, among which was the rudimentary or undeveloped condition of the third molar, or back grinder tooth. The Doctor believes that the first men originated in Asia.

Disqualified for Appointment to Make Examination.—If, in any case, a litigant, suing for the recovery of damages for alleged injuries to his person caused by the negligence or the wrong of the defendant in the suit, can be, upon motion of the defendant, compelled to submit to an examination by a surgeon, the court of civil appeals of Texas holds, Houston and Texas Central Railway Company v. Berling, Nov. 12, 1896, that such surgeon should be one agreed on by the parties or selected by the court and not one who has already testified in the case adversely to the plaintiff.

Waiver of Privilege as Part of Contract.—Where the statutory law in force at the time a contract of insurance is entered into permits the insured to waive the benefit of the provisions of law preventing any physician from disclosing any information acquired in attending patients, and such a waiver is incorporated in the contract of insurance, the court of appeals of New York holds, in the case of Foley v. Royal Arcanum, Dec. 15, 1896, that a subsequent amendment of the law allowing waiver only when made upon the trial does not affect the waiver already made as stated, because the legislature can not pass an act impairing the obligation of contracts, and such a waiver is not in and of itself contrary to public policy.

Filling of Child's Teeth not Urgent Necessity.—While extracting of a tooth in relief of a toothache may be reasonably within the agency of a person with whom a child is temporarily residing apart from its parents to require, and thus obligate the father to pay for, the appellate term of the supreme court of New York holds, in Ketchem v. Marsland, Nov. 25, 1896, that such agency does not extend to the employment of a dentist to fill and regulate the position of such a child's teeth, it not being deemed such an urgent necessity as to warrant such a course. However, the court holds the father liable in this case because of his ratification of what was done by not communicating any dissent to the dentist during three years that elapsed after he sent in his bill.

Opinions on Qualifications of Experts.—One who has personal knowledge of the qualifications of an expert, the supreme court of Michigan holds, People v. Holmes, Dec. 24, 1896, may speak to the fact, based upon such knowledge; but reputation can not be shown, nor can an opinion as to the qualifications of an expert be based upon reputation. Thus, to ask a medical witness whether he regards another one as good authority, the court declares objectionable, on the ground that the opinion called for might be based upon mere reputation. Nor does the court think it proper to attempt to show the effect of an injury upon a person's mind by showing the effect of a somewhat analogous injury on the mind of another person.

Anatomic Foundation of Acute Delirium.—Prof. N. M. Popov recently had an opportunity to study the cerebral lesions in the case of a woman who had died from acute post-puerperal delirium. The nerve centers showed important modifications, the cerebral parenchyma was also affected, the pia mater and the superficial layers of the cortex were full of vascular lesions like small interstitial hemorrhages, while the neuroglia and nerve cells were perceptibly altered, the whole resembling what occurs in cholera, presenting the picture of a diffuse meningo-encephalitis with hyperplastic alteration of the cerebral substance itself. The conclusions to be drawn from these facts are that the conditions are undoubtedly due to some infection as in the case of cholera.—*Bulletin Médical*, December 23.

Can Give Opinion Before Facts.—When it is shown that a medical expert has made the proper professional examination of the patient in order to ascertain the existence of some physical or

mental disease, the court of appeals of New York, in the case of People v. Youngs, Dec. 15, 1896, that he is then qualified to express an opinion on the subject, though he may not yet have stated the scientific facts or external symptoms upon which it is based. At the same time, the court thinks it undoubtedly the better and safer practice to require the witness to state the circumstances of his examination, and the facts, symptoms or indications upon which his conclusion is based, before giving the opinion to the jury. But, if the opinion is given first, all the facts or symptoms upon which it is based may be drawn out also either upon the direct or cross-examinations.

Jubilee of Dr. Theodore Roussel of Paris.—The beautiful custom of celebrating the fiftieth anniversary of prominent persons with appropriate ceremonies and speeches is more customary abroad than in this country, where we usually wait until a man is dead before we express our appreciation of him and his services to mankind. Dr. Roussel's jubilee was celebrated with great brilliancy by a grand meeting in a large hall presided over by the Minister of the Interior, and the addresses were brilliant homages to the work accomplished by this well known physician, senator and hygienist. The laws for the protection of unfortunate children from infancy to maturity are recorded as the Roussel laws, and the deliverance of the country from pellagra, which still devastates the fairest provinces of Italy, is another debt France owes to Roussel. He remarked in his response that this jubilee was not the festival of a single man, but rather the rejoicing at the culmination of the collective labors of many at home and abroad, which have resulted in laying a firm and broad foundation for the "protection of unfortunate childhood."

The Epitaph of Yale's Founder.—It is not generally known that Elihu Yale, the founder of Yale University, lies buried in the churchyard at Wrexham, North Wales, about ten miles from Hawarden. The following lines are inscribed on his tomb in the front of the church door.

> "Born in America, in Europe bred,
> In Africa traveled and in Asia wed;
> Where long he lived and thrived, in London dead,
> Much good, some ill he did, so hope all's even,
> And that his soul through mercy's gone to heaven."

These quaint lines had become almost effaced by the "tooth of time," when, a few years ago, a party of Yalensians visited the church and seeing the state of things, had the lettering recut. The church itself is a very old one, more than five centuries, it is said, and the curfew is rung from its bells every evening.

Surgeon-General Robert Adair.—The hero of that fine ballad, "Robin Adair," was a dashing young Irish surgeon who, about the middle of the last century, finding his way into London society, was fortunate enough to secure the affections of Lady Caroline Keppel, daughter of William, second Earl of Albemarle, and his wife, Lady Anne Lennox, daughter of Charles, first Duke of Richmond. The match was naturally looked on with disfavor by the family of the young lady, and it was during a period of temporary separation that Lady Caroline is said to have written the words of "Robin Adair," and set them to the old Irish tune of "Eileen Aroon," which she had learned from her lover. At length, however, love triumphed, and the pair were united on Feb. 22, 1758. Within a few days Adair was appointed inspector general of military hospitals, and subsequently, becoming a favorite of the king, was made surgeon-general, king's sergeant-surgeon and surgeon of Chelsea Hospital. He died in 1790.—*Medical News*, January 2.

The Will of the Inventor of Dynamite.—The *Progrès Médical* states, January 16, that Alfred Nobel, the recently deceased Swedish engineer, who invented dynamite, bequeathed a large part of his immense property to establish a fund the income from which is to be divided into five equal parts and awarded each year to the five persons who during the year have made the most important discovery or improvement in physics, chemistry, physiology or medicine, or, in the domain of letters, the most exalted production in the ideal sense, or contributed the most or the best to the brotherhood of peoples, the suppression of standing armies or the propagation of peace congresses. The prizes are to be awarded irrespective of nationality and if the provisions of the will are carried out, each of the five annual prizes will amount to 300,000 francs.

Experimental Tests of Subconjunctival Injections.—After having produced an ulcer in the center of the cornea in rabbits by injecting cultures of staphylococci, Von Sicherer treated one eye with subconjunctival injections of the various medicaments used for the purpose, leaving the other eye untouched. He found that the injections produce in fact a slight salutary effect, by causing a considerable leucocytosis around the infected focus. The simple 2 per cent. salt solution is equally effective with the more irritating salts, and deserves the preference for these injections. But there is no necessity for the injections at all, as the same effect is produced by the simple application of a salve of the yellow oxid of mercury, followed by an occlusive dressing. The leucocytosis thus produced is equal in extent to that by any other method, and the ulcer heals as promptly. Von Rothmund reserves galvano-cauterization for the supplementary treatment of ulcers of the cornea that are decidedly progressive and serpiginous.—*Rev. Gen. D'Ophtalmologie*, November.

Advance Waiver of Privilege Under New York Law.—The New York law providing that information acquired by a physician while attending a patient in his professional capacity, and which was necessary to enable him to act in such capacity, shall not be disclosed by him, was amended, in 1891, making the exception where such provisions are "expressly waived upon the trial or examination" by the patient. An application for insurance made in 1893 stated that the provisions of the New York law, and of similar provisions in the laws of other States, were thereby waived, and that it was expressly consented and stipulated that, in any suit on the policy applied for, any physician who had attended, or might thereafter attend, the insured, might disclose any information acquired by him in any wise affecting the declarations and warranties made in such application. This, the appellate division of the supreme court of New York holds, in Holden v. Metropolitan Life Insurance Company, Dec. 2, 1896, was a good waiver of the patient's privilege, which would preclude his legal representatives from afterward objecting to the admission of the testimony of his attending physician as to his having previously had bronchitis.

Connection Between Word Deafness and Deafness.—Word deafness has hitherto been ascribed to a cerebral lesion, but Keller and Freund have recently been impressed with the important connection between it and disturbances of the ears, especially of the labyrinth, which is able alone to cause word deafness. They urge the necessity of investigation of the ears in such cases. Keller asserts that isolated speech deafness with retained ability to comprehend other sounds, often corresponds with bilateral affections of the labyrinths, and is dependent upon tone-gaps in that portion of the tone scale which is physiologically important for the comprehension of speech. It sometimes happens that bilateral ear affections which in themselves are not sufficient to cause word deafness, produce it by a secondary degeneration of the nerve tracts and auditory centers. It requires such supreme efforts of attention then to hear that the patient gradually renounces the attempt, and lack of use hastens the degenerative processes. This is demonstrated by Urbantschitsch's system of ear gymnastics, which does not so much improve the hearing as it arouses and practices the faculty of comprehending what is heard. Pick's case is instructive in this respect. The patient was exceedingly hard of hear-

ing with word deafness also, and yet no lesion of the ears could be ascertained. The necropsy revealed, however, great alterations in the temporal lobe, to which the sensory aphasia was undoubtedly due.—*Deutsche Med. Woch.*, January 14.

Declarations of Cause of Injury not Evidence.—Whatever the rule may be in other jurisdictions, the supreme court of Illinois holds, in Globe Accident Insurance Co. v. Gerisch, Nov. 23, 1896, that the declarations of an insured person, as to the cause of his injury, made to his physicians at different times from several hours to three days after the supposed accident, are not proper or competent evidence in an action brought to recover upon a policy of accident insurance for his death, though had his statements related only to the part of his person that was hurt, his sufferings, symptoms, and the like, it would have been competent evidence.

Want of Skillful Treatment no Defense in Murder Case.—In the murder case of State v. Edgerton, the supreme court of Iowa holds, Dec. 9, 1896, that the trial judge properly stated the law when he charged the jury that if they found from the evidence that the defendant inflicted wounds which caused or contributed to cause death, then he could not avoid the consequences of his act on the ground that the wounds were not treated according to the best and most approved methods of medical and surgical treatment for wounds of that character, and that the judge properly excluded certain expert and medical testimony, as well as some medical and surgical books offered by the defendant, tending to show that by proper treatment of the wounds of the diseased his life might or could have been saved, it being especially contended that if the physician called had resorted to "laparotomy" his patient might have recovered.

Alloxur Bodies and Leukemia.—Gumprecht (*Centralblatt für allgemeine Pathologie und Anatomie*, Vol. vii. p. 820, 1896), taking the term "alloxur bodies" in Kossel and Kruger's sense as meaning those bodies which have an alloxan and a urea nucleus and therefore as meaning beside uric acid, also xanthin or nuclein bases (xanthin guanin, hypoxanthin adenin, or their derivatives) found that in leukemia in the cases where uric acid excretion is normal or diminished (it is generally increased) the alloxur bodies are increased, and that their amount varies directly with the amount of leucocytosis. He gives one case of his own in which this is shown very clearly, and points out that it forms an additional support to Horbaczewski's view that uric acid comes from degeneration of leucocytes, being formed from their nuclei. The "alloxan nucleus," or erythric acid, is a substance obtained from uric acid by the action of nascent chlorin or nitric acid, in the form of colorless crystals, large and small, that impart a red color to the skin. This substance has been found in the intestinal mucus of catarrhal enteritis. —*British Medical Journal*, December 26.

Formol.—Its synonyms are formaldehyde, formic aldehyde, formyl hydrid, mehanal. Preparation (Trillat process): Vapors of methyl alcohol are passed through coke or retort charcoal, heated red hot, in a copper tube. This results in the production of formol in an aqueous solution, mixed with methyl alcohol with possibly traces of formic acid. The alcoholic and ether products are expelled by distillation. The formol solution is then concentrated to 40 per cent. and in this form is commonly called formalin. Formic aldehyde is gaseous. It is usually employed in the 40 per cent. solution. It can not be concentrated beyond 50 per cent., as it undergoes in that case a polymerization which transforms it into a solid substance, trioxy-methylene or triformol. In the 40 per cent. solution it is a colorless liquid with a strong, pungent odor, resembling that of the mouse, and a peppery taste. Reaction neutral. Formol dissolves readily in water. It is a powerful antiseptic, prevent ing fermentations and putrefaction of the urine. It is not toxic. It is used in surgery in a solution of 0.25 to 1 gram per 1,000. As a disinfectant it is evaporated in the infected rooms in shallow dishes containing a liter of formol diluted one-tenth. Traces of formol causes a characteristic white cloudy disturbance in diluted solutions of anilin. It is incompatible with ammonia, alkalin bisulphates, silver and copper solutions and gelatin. Formol deodorizes the hydro-sulpho- combinations. —From the *Annales de la Soc. Méd.-Chir. de Liège*, December.

The "Itchy Man" at Guy's Hospital.—The *Lancet*, November 28, quotes from a recent book, "The Girlhood of Maria Holroyd," who was the daughter of Lord Sheffield, the president of Guy's Hospital, about a century ago, to illustrate the "pull" of a peer, in those degenerate days. "Papa has got into Guy's Hospital four Frenchmen, gentlemen and officers, who perhaps you may recollect something of their having been a long time confined on board a ship and at last escaped by swimming to shore; I forget the particulars. How melancholy to think that these gentlemen are most thankful for admittance to the hospital; but one of them, a very genteel young man, is almost eat up by the 'itch'; and as it is a very extraordinary complaint, and they had no other proper place to put him into, he is now in the same apartment with the lunatics. They have hardly a shirt to their backs and neither shoes nor stockings. With the greatest difficulty they (four in a hackney coach) collected amongst them twopence to pay the turnpike. James went to the hospital to receive them and recommend them to the steward, and offered them money by papa's desire. They refused accepting it, saying they should want for nothing there. What uncommon generosity of mind, for men who are not above entering into an hospital can not be accused of false pride. Papa has sent Walpole today to get a lodging for the itchy man if he finds himself at all incommoded by his situation among the madmen. It really makes one's blood run cold to think what extremities hundreds are reduced to and what a number of melancholy stories there are that come to our ears." What a howl would be raised now were such a thing to be done. But it is a charming story and one hardly knows whom to pity most, the itchy men or the madmen. Perhaps the former is the more fit subject for compassion, since a lunatic ward at the end of the eighteenth century was not a desirable habitation.

Large Roentgen Apparatus.—Dr. R. A. Fessenden of Western University has just completed what is believed to be the largest apparatus of this kind in the world.

The machine is enclosed in a neat oak cabinet, four feet high and two feet wide, and weighs but 175 pounds. Handles are provided on either side to carry it. The most important feature is the coil, which rests near the base, between the legs of the cabinet. This is composed of seventeen coils and is wound with fifty miles of small wire. It is arranged to give a spark over twenty inches long, while the capacity of the machine reaches thirty inches. The current is received from two portable storage batteries, the ordinary direct or the alternating currents. The main circuit is broken by a revolving contact breaker which makes about two hundred breaks a second. This is important when it is known that the sparks are produced when the current on the large wire is broken. The contact breaker is immersed in ordinary petroleum, and is adjacent to a magnet, both of which put out any light produced in the breaker. This is encased in a small box on the top of the cabinet and is driven by a small one-horse power motor placed beside it. The suddenness of the breaking of the sparks is regulated by an adjustable condenser, also on the cabinet top. It is simply an alternation of tin foil sheets and paraffin paper. It arrests sparks and makes the break more sudden. Fastened to the side of the cabinet is an adjustable arm for holding the Roentgen ray tube. This is so constructed with several elbows that it can be placed in any position. If necessary, it can be placed beneath the bed upon which the patient lies and the photograph taken without moving or disturbing the sick one. A drawer is also inserted in the cabinet for the storing of assorted sizes of tubes. The tube is of Professor Fessenden's own discovery and represents the latest and most economical principles. It was worked out six months ago and has been in successful operation. It was designed

in accordance with a principle that the positive electrode must not be nearer any part of the fluorescent glass than the length of spark the coil will give. The positive terminal is, therefore, enclosed in a long tube connected with the main bulb. The coil is the most powerful ever successfully made. A photograph can be taken through the thickest part of the body in fifteen minutes, and the surgeon can easily see through every part of the body with the fluoroscope.

The New York Maternity Hospital Receives a Princely Gift.—We envy men of large wealth in one particular only, or chiefly, let us say, and that is in respect of their luxury of liberal giving to worthy causes. Such a luxury has Mr. J. Pierpont Morgan of New York, recently indulged in, in a gift of a ton of money, more or less, to suffering womankind. He purposes to donate $1,000,000 for a new building, ten stories in height and fireproof throughout, to the New York Lying-in Hospital. Wealthy women have given largely to churches and art, but it has been left to a man, already known for his generous gifts in other quarters, to seize the opportunity to qualify the parturient suffering of the poor. The following comment in the *New York Herald* explains gracefully and cunningly the concomitants of the generous gift:

"Mr. Pierpont Morgan has done so many things with his right hand which his left hand knew nothing about that it gives us a peculiar pleasure to congratulate him on an act of beneficence concerning which he is compelled to take the public into his confidence. There are many men in New York who are not only princely in the extent of their fortunes, but equally princely in their gracious generosity. Among these Mr. Morgan occupies an enviable place. He has bestowed a large sum on a most worthy institution. There are in this city tens of thousands of women who while passing through the ordeal of child bearing are dependent on charity for nursing and medical attendance. The Lying-in Hospital has done what it could to alleviate their sufferings, but Mr. Morgan's beneficence increases its power for good at least one hundred fold. The condition on which this gift is based—namely, a sufficient endowment to keep the institution in perfect running order—offers another opportunity to our citizens to assist a cause which makes a very pathetic appeal to the community."

The influence of a physician, Dr. Thomas M. Markoe, is said to be back of it all. The annual income of the hospital is $47,000, inclusive of $12,000 that the city is in the habit of apportioning to it. It is stated that no donor during his lifetime has given an equal sum to a charitable institution. Five of the junior physicians on this hospital's staff have been traveling and investigating the home and foreign hospitals, their expenses having been defrayed by Mr. Morgan, and this has been going on in a quiet way, for fully two years. The new building as at present designed is to be a ten-story fireproof structure of steel framework and a body of granite and light brick. It is to be ten stories high and capable of accommodating six thousand patients yearly, as against the present capacity of about 2,768. In the cellar floor will be the laundry, furnaces, dynamo rooms, a disinfecting room and rooms for servants and attendants. The basement will contain a student's dormitory and sitting room, drug store, instruction room and clinic and examination rooms. The kitchen and dining room for attendants will be on this floor.

Etiology and Treatment of Puerperal Eclampsia.—Dr. William Warren Potter of Buffalo read a paper on the above subject at the 91st annual meeting of the Medical Society of the State of New York, Albany, Jan. 26, 1897. He said, in part:

"Though the pathogenesis of eclampsia is still unsettled, we are certain that it is a condition *sui generis*, pertaining only to the puerperal state, and that to describe, as formerly, three varieties—hysteric, epileptic and apoplectic—is erroneous as to pathology and causation, as well as misleading in treatment. The kidney plays an important office in the pathology of the eclamptic. If it fail to eliminate toxins, symptoms are promptly presented in the pregnant woman. Renal insufficiency is a usual accompaniment of the eclamptic state. Overproduction of toxins and underelimination by the kidney is a short route to an eclamptic seizure. However, many women with albuminuria escape eclampsia, and many eclamptics fail to exhibit albuminous urine. The microbic theory of eclampsia has not yet been demonstrated. The toxemic theory, in the present state of our knowledge, furnishes the best working hypothesis for prevention or cure. Treatment should be classified into 1, preventive; and 2, curative. The preventive treatment should be subdivided into medicinal and hygienic, and the curative into medicinal and obstetric. A qualitative and quantitative analysis of the urine must be made at the onset. If there is defective elimination, something must be done speedily to correct a faulty relationship between nutrition and excretion. One of the surest ways to control progressive toxemia is to place the woman upon an exclusive milk diet. This will also serve to flush the kidneys and thus favor elimination. Distilled water is one of the best diuretics; it increases activity and supplies material—two important elements. In the pre-eclamptic state, when there is a full pulse with tendency to cyanosis, one good full bleeding may be permissible, but its repetition should be regarded with suspicion. If there is high arterial tension, vaso-motor spasm, glonoin in full doses is valuable. When eclampsia is fully established the first indication is to control the convulsions. Full chloroform anesthesia may serve a good purpose. If the convulsions are not promptly controlled the uterus must be speedily emptied. This constitutes the most important method of dealing with eclampsia. Two lives are at stake, and by addressing ourselves assiduously to speedy delivery of the fetus we contribute in the largest manner to the conservation of both. Rapid dilatation first with steel dilators, if need be, then with manual stretching of the os and cervix, followed by the forceps, is the nearest approach to idealism. Only rarely can the deep incision of Dührssen be required. Cæserean section should be reserved for extreme complications, as deformed pelvis, or to preserve the fetus when the mother's condition is hopeless. Veratrum viride is dangerous, uncertain and deceptive in action. In eclampsia of pregnancy, *i. e.*, prior to term, the aseptic bougie, introduced to the fundus and coiled within the vagina, may be employed to induce labor. Finally, to promote the elimination of toxic material diuresis, catharsis and diaphoresis should not be forgotten; neither should the hot air bath nor the hot pack be overlooked."

Tetanus.—The following four cases of traumatic tetanus, all under treatment at the Cook County (Illinois) Hospital at the same time, make a remarkable record in the treatment of this fatal malady. Three out of the four recovered, while the one that died was prognosed the most favorable of the quartet on admission to the hospital.

The first case was in the service of Dr. A. F. Lemke. The patient was a boy of 17 years, who stepped upon a nail and received a puncture in the sole of the right foot. He was admitted to the hospital on Sept. 20, 1896, and had general tetanus of the most pronounced type. On the 22d, he was given 50 cubic centimeters of the Pasteur Vaccine Company's tetanus antitoxin, which was followed by a decided amelioration of the symptoms. On the 23d he was given 20 cubic centimeters more, and on the 29th a third dose of 20 cubic centimeters. This was the last dose of the antitoxin used and his recovery was uninterrupted.

The following three cases were in the service of Dr. L. Dysart, who kindly furnished the notes herewith given. The first patient was a colored boy of 14 years, admitted to the hospital on Sept. 24, 1896. He had convulsions of a general character, most marked in the upper extremities and thoracic regions—the spasms occurring about every five minutes, and were of a severe type. The trismus in this case was well marked and accompanied by some *risus sardonicus*. Four days after the development of the tetanic symptoms, and not yielding to the ordinary means of treatment, the boy was given 30 cubic centimeters of antitoxin. Three days later another similar dose was administered. The convulsions ceased, convalescence was established and the patient is practically well, a little more than three weeks from the date of the attack.

The next case was a laboring man of 42 years, admitted on October 7. Nine days after receiving a wound on the right malleolus by being struck with a staple, symptoms of tetanus were developed, being the most pronounced in the arms and muscles of the chest, with trismus of a severe type. On the third day after the development of the symptoms he received his first antitoxin, 50 cubic centimers. On the following day he was given a dose of 30 cubic centimeters, since which time there has been such a continued and gradual decline of symptoms that it has not been deemed necessary to repeat the dose. His recovery is now assured.

The last case of the series is that of a boy 8 years of age. On September 26 he was kicked by a horse on the left side of the head. Soon afterward facial paralysis was noticed, and ten

days after receipt of the injury the first symptoms of tetanus appeared. These were confined to the head, neck and upper part of the thorax, but were of great severity. Four days after the spasms commenced he was given 50 cubic centimeters of antitoxin, and again four days later another dose of 60 cubic centimeters. The convulsions were partly controlled in the beginning of the treatment, but became more severe toward the last, and he died on the 14th of October, four days after his admission to the hospital and eight days after his first tetanic spasm. Owing to the age of the patient, the late appearance of the first symptoms, the limited area affected and the absence of any notable complications, this case was regarded as the most favorable one of the four. But it must be remembered that the antitoxin was not used for four days after the development of the disease; whereas to secure the best results from any antitoxin, it should be employed at the earliest possible moment. The physician in charge of the case at the hospital used the antitoxin immediately upon his admission, but the disease had already been running four days, and its speedy termination in death shows that it must have been of a very grave type.

The Microphonograph.—Professor Dussaud of Geneva has invented a microphone placed directly on the membrane of a phonograph, attached to a battery and telephone receiver, which transmits sounds to the ear greatly magnified, and promises to be to the ear what the microscope is to the eye. When the receiver is held to the ear the sounds repeated by the phonograph can be regulated by increasing or decreasing the current or manipulating the microphone. A volume of sound can be secured sufficient to produce violent pain to normal ears, while deaf persons with a little practice can learn to distinguish melodies with it, beating time to them and distinguishing them, showing a preference to this or that tune, etc. The value of such an instrument in teaching the deaf to converse is inestimable, and it can also serve as an audimeter, determining the more or less absolute deafness of the subject, and improvement or the reverse in hearing. It will also serve another purpose in registering sounds inaudible to the ear, such as the pulsations of the heart, the sounds produced in respiration, the steps of an ant, etc., and reproduce them magnified for scientific study. As sound is so eminently fleeting, it must be fastened and held to be studied with scientific accuracy, which Professor Dussaud has succeeded in accomplishing. Microphonography is destined to an important rôle in the study of the at present inaudible sounds of normal and pathologic organs. He states the four following principles as the foundations of his investigations, and the source of his success: 1. The sounds transmitted by means of the microphone undergo an important transformation in their character, and become more accessible to defective hearings as they assume in some respects the characters of noise. 2. the microphone is the only means of increasing the power of acoustic waves to a point where the sense of hearing, even the most blunted, is able to perceive them as long as there is a vestige of the sense left. 3. The mechanical vibration of the microphone caused by the vibrating membrane of the phonograph produces an acoustic power several hundred times superior to that obtained by transmitting atmospheric waves on the microphone. 4. By placing the wooden receiver in contact with the ear the mechanical vibration of the wood, varying with each note or syllable transmitted by phonograph, produces a mechanical effect on the ear, which approximates in the case of the deaf and dumb what we call the sensations of sounds.—*Bulletin de l'Acad. de Méd.*, December 29.

Husband can Recover for Sale of Laudanum to Wife.—The supreme court of North Carolina has handed down a decision, Nov. 24, 1896, in the case of Holleman v. Harward, for which it says it was able to find no precedent in the English Common law courts or in the courts of any of our States, save only in the New York case of Hoard v. Peck, 56 Barb. 202. It holds that an action will lie at the suit of a husband, to recover damages from druggists for injuries sustained by him in consequence of the sale by them to his wife of laudanum and similar preparations, in violation of his express orders, and knowing that his wife was using the drugs in large quantities as a beverage to the ruining of her health. It bases its decision upon the broad principle that, "whoever does an injury to another is liable in damages to the extent of that injury." A married woman, it says, still owes to her husband, notwithstanding her greatly improved legal status, the duty of companionship and of rendering all such services in his home as her relations of wife and mother require of her. And so it holds that the defendant druggists owed the husband the legal duty not to sell to his wife opium in the form of large quantities of laudanum as a beverage, knowing that she was, by using them, destroying her mind and body and thereby causing loss to the husband. Under the circumstances stated, it declares they were just as responsible as if they had forced her to take the drug for they had their part in forming the habit in her, and continued the sale of it to her after she had no power to control herself and resist the thirst; and that, too, after the repeated warnings and protest of the husband, who said that he was trying to counteract the habit, which he alleged was the outgrowth of taking opium in different forms, principally laudanum, as a medicine. There is no difference, the court insists, between the principle involved in this action and the principle upon which a husband can recover from a third person damages for assault and battery upon his wife. Nor will it admit that, because there is no statutory provision in North Carolina prohibiting the sale of laudanum as a beverage or as a medicine, it must therefore follow that a sale of it under all circumstances is lawful. It is a well known poisonous drug, which can not be drunk as a beverage without injury to the body, affecting the health of the physical and moral powers, as all druggists know. So it reverses a judgment which held there was no cause of action stated in this case, laying down the law as above.

1896 at the Paris Academie de Medecine.—The retiring president, Dr. Hervieux, in his address stated that each year has certainly had its share in the progress accomplished in these last years of the century, and 1896 deserves honorable mention. . . Perfection in asepsis has reduced the mortality in our lying-in-hospitals from 13 per cent. a few years ago to a fraction of 1 per cent. Surgeons now approach the most audacious operations with perfect confidence, extirpating the larynx or a kidney, a portion of the liver, several centimeters of intestines, the bladder, the uterus, the ovaries, and think nothing of opening the abdomen to solve a diagnostic question. Not a meeting takes place without some remarkable surgical achievement presented. Our hospitals are overcrowded with patients, and this crowding, which a few years ago would have produced the most deplorable epidemics, now has no effect on raising the mortality. . . . The present is an age of facts, as is shown once more by the absence of theoretic discussions and the preponderance of practical questions in our meetings this last year. . . . The year 1896 has added another to the list of microbian diseases, and Nocard's discovery of the bacillus of psittacosis has established its infective character. Yersin's serum has triumphed over the plague. Henriot has discovered a new ferment in the blood which solubilizes the fats. Lannelongue has secured brilliant success with his sclerogenic treatment of inguinal hernia with chlorid of zinc. The Roentgen ray has been utilized to discover foreign bodies in the organism, and radioscopy with the fluorescent screen has enabled Fournier to study the displacement of the liver during each respiration and the cardiac revolution as it commences with the auricles. Cornil has also added to our knowledge by his important study of the mode of reunion of the serosa in intestinal operations. He fastened the serous surfaces of two intestinal loops together and watched the histologic processes, finding that they are due entirely to the multiplication and displacement of the cells

of the endothelial and connective tissues by movements of their protoplasm, anastomizing and forming the definite cicatrix by the formation of new vessels, which result from their activity. A similar process occurs in the fibrinous effusions in aseptic pleurisy, and he also states that the cicatrization of vessels after a ligature is the same as after suturing. Francois-Franck has succeeded in establishing the vasomotor action of the nerves of the pulmonary vessels. Stimulation of the filaments emerging from the superior thoracic ganglion increases the pressure in the pulmonary artery while it diminishes it in the left auricle.

Medico-Literary Notes.

PREMATURE BURIAL.—Mr. W. Tebb, an Englishman, and Col. Vollum, an American, have thought it to be worth their while to get up a book on this subject, published in London, by Swan, Sonnescheim & Co. It is a grewsome subject and it will grow still more hideous when the Sunday newspapers have their attention called to the theme.

A BRINTON CALENDAR.—The publishing house of Jacobs & Co., Philadelphia, has upon its list "The Pursuit of Happiness" Calendar for 1897. The writings of Dr. Daniel G. Brinton have been drawn upon, in many happy selections, to make the calendar instructive. A portrait and decorative drawings give it added attractiveness.

AN AMERICAN BOOK COMMENDED.—The *Lancet* speaks quite highly of an American book, namely, Norris and Dickinson's Text-book of Obstetrics, issued in London by the Rebman Publishing Company, at 42 shillings. The book has 900 illustrations of a high order of merit that were contributed by Dr. Robert L. Dickinson of Brooklyn as art editor. On this subject the *Lancet* says: "There is generally something attractive about a fresh presentment even of familiar facts, and to this attraction there are added in the work before us several features that in no small degree contribute to make it a welcome addition to the literature of the subject. We may more especially instance the illustrations, many of them beautifully colored, for which we have nothing but praise. There is, we think, no work on midwifery in which the illustrations are so numerous and excellent. The figures are all drawn to scale, usually one-third or one-sixth life size." The American publisher is W. B. Saunders of Philadelphia. Another reviewer has written: "In the wealth and excellence of its illustrations, this work stands alone."

THE COMMENTARY OF APOLLONIUS.—An important contribution to a revival of interest in ancient medical literature has appeared in a magnificent edition of the Commentary of Apollonius of Kitium on the Hippocratic treatise, περὶ Ἀρθρων, "On the Joints," by a German scholar—Hermann Schöne. Apollonius, like another physician of note, Apollodorus, taught and practiced medicine at Kitium, a town on the south coast of Cyprus. He flourished about the date 60 B. C. A still further confirmation of his date is the fact that his commentary is dedicated to Ptolemy—not the King of Alexandria, but almost certainly Ptolemy Auletes, King of Cyprus. Little more is known of him, but his commentary has always been prized by medical scholars and has been carefully studied by Bandini, Kühlewein, Ilberg and others. The manuscript on which the text before us is based is in the Laurentian Library in Florence, and its history as given by Schöne is of peculiar interest. Schöne assigns it to the second half of the ninth century. It was bought on April 3, 1492, in Candia by John Lascaris, on his second voyage to Greece, at the instance of Lorenzo de' Medici. It next received hospitality in the Bibliotheca Medicæa under Piero de' Medici; then it was passed on to Rome at the request of Pope Clement VII. We next find it in the hands of Guido Guidi, physician to King Francis I. of France, who translated it into Latin; and then a copy of it was made for the library at Fontainebleau. It can be next traced to the library of Cardinal Ridolfi, from whose keeping it was transferred to that of Marshal Strozzi, and once more to that of Catharine de' Medici, from whom it finally found its way into the Laurentian Library before 1571. It constitutes the "fons et origo" from which the Parisian and other manuscripts are derived. All this and a good deal more related with admirable lucidity by Schöne leads up to the text, of which he presents us with a careful recension, which is likely to remain the "textus ab omnibus receptus" for a long time to come. Hardly less important are the plates, thirty in number, which illustrate the text beside conveying to us a vivid appreciation of the anatomic science of the first century B. C. These are executed with consummate skill, thanks in the first instance to an able photographer, then to a not less competent lithographer, in whose hands the facsimiles of the manuscript and diagrams, clear, effectively colored and highly artistic, gives the book a value of their own. The whole volume, published at Leipzig by Teubner, is indeed honorable to the medical scholarship of Germany and leads us to hope for other contributions to the elucidation of Hellenic healing art from the same editor.—London *Lancet*, December 12.

THE PUBLIC SERVICES.

Army Changes. Official List of changes in the stations and duties of officers serving in the Medical Department, U. S. Army, from Jan. 30 to Feb. 5, 1897.

Major Edward B. Moseley, Surgeon, ordered upon the expiration of his leave of absence to Benicia Bks., Cal., relieving Major Curtis E. Munn, Surgeon. Major Munn, on being thus relieved, is ordered to Ft. Logan, Colo., for duty, relieving Major Augustus A. DeLoffre, Surgeon. Major DeLoffre, on being thus relieved, is ordered to Ft. Sam Houston, Texas, for duty.

Major William C. Shannon, Surgeon, will upon expiration of his sick leave be relieved from duty at Ft. Custer, Mont., and ordered to Jackson Bks., La., for duty, relieving First Lieut. Robert S. Woodson, Asst. Surgeon. Lieut. Woodson, on being thus relieved, ordered to Ft. McPherson, Ga., for duty, relieving Capt. Philip G. Wales, Asst. Surgeon. Capt. Wales, on being thus relieved, ordered to Ft. Niobrara, Neb., for duty.

Navy Changes. Changes in the Medical Corps of the U. S. Navy for the two weeks ending Feb. 6, 1897.

Asst. Surgeon H. LaMotte, granted sick leave.

Asst. Surgeon C. E. Riggs, detached from the "San Francisco" and ordered to the "Detroit."

Change of Address.

Crowley, P. F., from Dunning to Jefferson Park, Ill.

Davies, W. H., from Maquoketa, Iowa, to San Bernardino, Cal.

Gallagher, Thos. J., from 1321 Race St. to 605–606 California Bldg., Denver, Colo.

Heise, Ellen H., from Irving Park to 204 N. Main St., Canton, Fulton Co., Ill.

Hickman, Henry, from 3586 to 3624 S. Broadway, St. Louis, Mo.

Reynolds, Dudley S., from 3d and Chestnut Sts. to 304 W. Chestnut St., Louisville, Ky.

Van Cleve, A. H., from El Paso, Texas, to Silver City, N. M.

LETTERS RECEIVED.

Abrahams, R., New York, N. Y.; Anthony, H. G. Chicago; Appel, A. H., Fort Porter, Buffalo, N. Y.

Brown, F. F., New York, N. Y.; Beard, R. O., Minneapolis, Minn.; Baker, Henry B., Lansing, Mich.; Buckhout O. K. Chemical Co., Kalamazoo, Mich.; Biddle, J. G., Philadelphia, Pa.; Brown, I. M., New London, Wis.; Boehringer, C. E., & Soehne, New York, N. Y.

Carveth, J. A. & Co., Toronto, Can.; Cockett & Overman, Cleveland, Ohio; Clark, C. R., Warsaw, N. Y.

Davison, F. B., Fleetville, Pa.; Davis, A. C., Topeka, Kas.; Dake's, E. C., Advertising Agency, San Francisco, Cal.; Dunn, G. & Co., St. Paul, Minn.; Diefendorfer, W. B., Cresson, Pa.

Earle, C. A., Desplaines, Ill.

Fehr, Julius, Hoboken, N. J.; Fullert, C. H., Advertising Agency, Chicago; Ferguson & Goodnow, Chicago; Forline, H. H., Houston, Texas; Fougera, E. & Co., New York, N. Y.; Finch, W. E., Durham, N.C.

Gibbons, P. J., Syracuse, N. Y.; Gillis, J. A., Buda, Texas.

Hamblin, R. E., Toledo, Ohio; Haldenstein, I., New York, N. Y.; Harriman, W. E., Ames, Iowa; Hazlett, J. W., San Bernardino, Cal.

Ingals, E. Fletcher, Chicago; International Society, The, Chicago.

Kremers, H., Holland, Mich.; Krafft, Wm., New York, N. Y.; Kreider, George N. Springfield, Ill.; Koechl, Victor & Co., New York, N. Y.

Londonderry Lithia Spring Water Co., Nashua, N. H.

Madden, John (2), Milwaukee, Wis.; Mallory, C. H. Co., New York, N. Y.; Merrick, M. B., Passaic, N. J., Muehleck, Geo. A., Philadelphia, Pa.; Midland Chemical Co., Cleveland, Ohio; Minor, Chas. L., Asheville, N. C.; Mulford, H. K., Co., Philadelphia, Pa.

Northwestern Christian Advocate, Chicago.

Ozone Co., The, Chicago; Ott, Isaac, Philadelphia, Pa.

Parker, M. G. (2), Lowell, Mass.; Purvis, C. B., Washington, D. C.; Paquin, The Paul, Laboratories, St. Louis, Mo.; Pearse, Herman E., Kansas City, Mo.; Procter & Collier Co., Cincinnati, Ohio.

Russell, C. R., Keokuk, Iowa; Reynolds, Dudley S., Louisville, Ky.; Rhoads, Thos. Leidy, Philadelphia, Pa.; Register & Montgomery (Drs.), Charlotte, N. C.; Reed & Carnrick, New York.

Steiger, E. & Co., New York, N. Y.; Sturgis, F. R., New York, N. Y.; Schering & Glatz, New York, N. Y.; Springer, Willard, Wilmington, Del.; Schultze, Moritz, Chicago; Searles, J. D., Keokuk, Iowa; Sutton, R. L., Orrville, Ala.; Schieffelin & Co., New York, N. Y.; Sutton, C. F., Baltimore, Md.; Starkey, Horace, M., Chicago; Smith, E. Franklin, New York, N. Y.; Society of the Lying-in Hospital of the City of New York, New York, N. Y.

Trowbridge, L. S., Detroit, Mich.; Townsend, W. R., New York, N. Y.

Ward Brothers, Jacksonville, Ill.; Wallon, A. J. & Son, Syracuse, N. Y.; Wallace, D. R., Waco, Texas; Wingate, U. O. B., Milwaukee, Wis.; White, M. M., Italy, Texas; Woodbury, Frank, Philadelphia, Pa.; Wilkinson, A. D., Lincoln, Neb.; Walsh, Ralph, Washington, D. C.; Whitmire, Z. L., Urbana, Ill.

Zumo Pharmacal Co., St. Louis, Mo.